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Clinical supervision among medical students and general practitioners

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Academic dissertation

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The way in is the way out.

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List of abbreviations

CME = continuing medical education

CS = clinical supervision

GP = general practitioner

HC = health centre/community health centre

MBI = Maslach Burnout Inventory

List of original publications

1. Torppa MA, Makkonen E, Mårtenson C, Pitkälä KH. A qualitative analysis of student Balint groups in medical education: Contexts and triggers of case presentations and discussion themes. *Patient Education & Counselling* 2008; 72: 5-11.
2. Torppa MA, Toivola K, Ruskoaho J, Pitkälä KH. Clinical supervision among family physicians: prevalence, needs and attitudes. *Journal of Primary Care & Community Health* 2013; 4: 275-280.
3. Torppa MA, Kuikka L, Nevalainen M, Pitkälä KH. Emotionally exhausting factors in general practitioners' work. *Scandinavian Journal of Primary Health Care* 2015; 33: 178-83.
4. Torppa MA, Kuikka L, Nevalainen M, Pitkälä KH. Family physician experiences with and needs for clinical supervision: Associations between work experiences, professional issues and social support at work. *Patient Education & Counselling* 2016; 99: 1198-1202.

Abstract

Clinical supervision (CS) in medicine has been defined as provision of monitoring, guidance and feedback on matters of personal, professional and educational development in the context of the physician's care of patients, with the aim of maximizing patient safety. It is aimed at promoting reflection and professional development. Use of CS is particularly widespread among general practitioners. The Balint group method is the most commonly used method of CS among physicians. However, properly carried out studies on the prevalence of CS, its associated factors, needs and benefits among GPs have largely been lacking. In this study the aim was to investigate the nature of student Balint groups, the use of and need for CS, emotional exhaustion among GPs and characteristics and work-related issues associated with CS.

This study involved three samples. Mixed methods, i.e. both qualitative and quantitative were used. Study I involved analysis of the field notes of 15 student Balint group discussions of nine medical students in their clinical years. A grounded theory-based thematic content analysis of the group discussions was performed. In Study II the material of the annual Finnish Medical Association survey of 2008, focusing on specialists in general practice (n=1252) was analysed to assess the use of and need for CS, and how physicians' characteristics and experiences with patients who make requests in consultation, were associated with them. In Study III we analysed the survey material concerning health-centre physicians (n=165) to explore the prevalence of emotional exhaustion among them and factors associated with it. Study IV involved the same survey material as in Study III and the use of and need for CS among health-centre physicians (n=165) and associations of certain work-related factors with CS was analysed.

Study I revealed that in the Balint groups, medical students reflected on their future professional identity as physicians, elaborated emotions evoked by patients and examined their own professional development. Most cases in Balint group discussions arose from patient encounters, but there was also a need to accept issues arising from other experiences as medical students and how being a physician affects one's life. The triggering issues in case narrations most often concerned medical students' encounters with seriously ill or dying patients, or situations where patients or professionals had behaved rudely. Also, having witnessed injustice, experienced one's own values to be in conflict in educational situations or not being sure of one's role triggered case narrations. Many themes in the discussions dealt directly with students' future identity as physicians and this was also dealt with indirectly in most cases through reflecting on experiences with negative role models and co-operation with other medical professionals. In addition, feelings related to patients

were a very common theme. It seemed that student Balint groups were used as a forum in which issues relevant to the students were reflected upon. These groups may foster medical students' professional development.

Studies II and IV revealed that a large proportion of GPs had experience of CS. In Study II, in the large Finnish Medical Association survey, 42 % of GPs, and in Study IV, in the convenience sample, 35 % had either previous or current experience of CS. Furthermore, 25 % and 36 % of GPs reported having a need for CS, respectively. In Study II the large survey indicated that female GPs had used CS, and acknowledged a need for it more often than their male colleagues, and that younger GPs had recognized a need for CS more often than older GPs. The large survey of physicians' experiences of and need for CS (Study II) revealed that CS was associated with active participation in continuing medical education, and often having patients who requested certain medicines or diagnostic tests. In Study IV, in the convenience sample, the experience of CS was associated with being older, whereas both the experience of and the need for CS were related to experiencing the job as being emotionally draining.

In Study III, analysis of the convenience sample indicated that the mean degree of satisfaction with work was high among GPs working as health-centre physicians, while at the same time 18 % of the GPs were emotionally exhausted, 30 % felt alone at work and 32 % felt that they had to work too hard. A longer working history, feeling alone at work, and having committed a medical error predicted emotional exhaustion, whereas good tolerance of uncertainty protected GPs from emotional exhaustion.

Tiivistelmä

Kliininen työnohjaus on lääkäreillä kliiniseen potilastyöhön liittyvää henkilökohtaiseen, ammatilliseen ja opilliseen kehitykseen liittyvää valvontaa, ohjausta ja palautteen antamista, jonka perimmäisenä tavoitteena on potilasturvallisuuden parantaminen. Kliinisessä työnohjauksessa edistetään refleктоivaa työtettä ja ammatillista kehittymistä. Lääkärien keskuudessa ovat Balint-ryhmäkeskustelut eniten käytetty kliinisen työnohjauksen menetelmä. Erityisesti yleislääkärit ovat sitä hyödyntäneet. Vaikka kliinistä työnohjausta on ollut jo vuosikymmeniä saatavilla, on tieteellistä tutkimusta tehty aiheesta hyvin vähän. Epidemiologisia tutkimuksia kliinisen työnohjauksen käytön yleisyydestä, sen koetusta tarpeesta tai sen hyödyistä on julkaistu vain vähän. Tässä tutkimuksessa selvitettiin lääketieteen opiskelijoiden Balint-ryhmäkeskustelujen sisältöjä sekä yleislääkärien kliinisen työnohjauksen käyttöä ja siihen koettua tarvetta sekä näihin seikkoihin yhteydessä olevia tekijöitä. Lisäksi tutkittiin yleislääkäreiden tunneupumusta ja siihen yhteydessä olevia tekijöitä.

Tutkimuksessa käytettiin monimenetelmällistä lähestymistapaa. Tutkimus koostuu kolmesta aineistosta ja siinä käytettiin sekä laadullisia että määrällisiä tutkimusmenetelmiä. Ensimmäinen osatyö koostuu 3.-6. vuosikurssin lääketieteen opiskelijoiden (n=9) Balint-ryhmäkeskusteluiden (15 ryhmäkeskustelua) kenttämuistiinpanoista, joille tehtiin Grounded theoryn nojalla temaattinen sisällön analyysi. Toisessa osatyössä analysoitiin vuoden 2008 Lääkäriliiton lääkärikyselystä yleislääketieteen erikoislääkärien (n=1252) vastaukset ja selvitettiin, kuinka paljon heillä on aikaisempaa tai nykyistä kokemusta kliinisestä työnohjauksesta, koettua kliinisen työnohjauksen tarvetta sekä miten vastaajien piirteet ja kokemukset potilaiden vastaanotoilla esittämistä vaatimuksista olivat yhteydessä edellä mainittuihin seikkoihin. Kolmannessa osatyössä tutkittiin kyselytutkimuksella tunneupumuksen yleisyyttä terveyskeskuslääkärien (n=165) keskuudessa ja selvitettiin tunneupumukseen yhteydessä olevia lääkärien piirteitä ja työhön liittyviä kokemuksia. Neljännessä osatyössä samaa aineistoa (n=165) käyttäen tutkittiin, kuinka yleistä on kliinisen työnohjauksen käyttö ja siihen koettu tarve sekä selvitettiin, mitkä vastaajien piirteet ja työhön liittyvät kokemukset liittyvät niihin.

Lääketieteen opiskelijat pohtivat Balint-ryhmäkeskusteluissa ammatillista identiteettiään, potilaiden heissä herättämiä tunteita ja ammatillista kehittymistään. Useimmat tapaukset, joista opiskelijat halusivat keskustella, liittyivät potilaskohtaamisiin. Opiskelijaryhmissä oli lisäksi tarve keskustella lääketieteen opiskeluun liittyvistä kokemuksista sekä siitä, miten tulevaisuudessa sovittaa lääkärin

ammatti ja oma yksityinen elämä toisiinsa. Tapauksen ryhmässä kertomisen taustalla oli useimmiten opiskelijoiden kohtaamiset vakavasti sairaiden tai kuolevien potilaiden kanssa, mutta merkittävästi myös epäoikeudenmukaisuuden näkeminen ja kokemus arvostitiriidasta opetustilanteissa. Useimpien tapausten yhteydessä opiskelijoiden tuleva identiteetti lääkäreinä oli suoraan tai epäsuorasti keskustelujen teemana. Tämän teeman yhteydessä käsiteltiin usein huonojen roolimallien tai moniammatilliseen yhteistyöhön liittyvien haasteiden merkitystä. Lisäksi potilaiden opiskelijoissa herättämät tunteet olivat hyvin tavallinen keskustelujen teema. Näytti siltä, että Balint-ryhmäkeskusteluilla voidaan tukea lääketieteen opiskelijoiden ammatillista kehittymistä.

Toisen ja neljännen osatutkimuksen mukaan suurella osalla yleislääkäreistä on kokemusta kliinisestä työnohjauksesta. Toisen osatutkimuksen suuressa kyselyaineistossa 42 % ja neljännen tutkimukseen terveyskeskuslääkäreiden otoksessa 35 % vastaajista oli joko aikaisempaa tai ajankohtaista kokemusta kliinisestä työnohjauksesta. Tämän lisäksi 25 % suuren kyselyaineiston ja 36% terveyskeskuslääkäreiden otoksen lääkäreistä koki tarvetta kliniseen työnohjaukseen. Suuressa kyselyaineistossa naispuolisilla yleislääketieteen erikoislääkäreillä oli enemmän kokemusta kliinisestä työnohjauksesta ja he tunnistivat useammin tarpeen osallistua siihen kuin miespuoliset kollegansa. Lisäksi nuoremmat vastaajat kokivat tarvetta työnohjaukseen useammin kuin vanhemmat. Ja edelleen lääkärin kokemus kliinisestä työnohjauksesta ja tarve osallistua siihen olivat yhteydessä aktiiviseen täydennyskouluttautumiseen ja kokemuksiin potilaista, jotka vaativat vastaanotolla tiettyjä lääkkeitä tai tutkimuksia lääkäriltä. Neljännen osatutkimuksen terveyskeskuslääkäreiden otoksessa kokemus kliinisestä työnohjauksesta oli yhteydessä korkeampaan ikään, kun taas sekä kokemus siitä että koettu tarve kliniseen työnohjaukseen olivat yhteydessä tunne-elämän kuormittumiseen työstä.

Kolmannessa osatutkimuksessa havaittiin, että työtyytyväisyys terveyskeskuslääkärien keskuudessa oli korkea, mutta samanaikaisesti 18 % koki tunneupumusta, 30 % koki itsensä yksinäiseksi työssään ja 32 % koki joutuvansa puurtamaan työssään liikaa. Pitkä työkokemus, yksinäisyyden kokemus työssä ja virheen tekeminen työssä ennustivat tunneupumusta, kun taas hyvä epävarmuuden sieto suojasi siltä.

Sammanfattning

Klinisk arbetshandledning har för medicin blivit definierad som övervakning, handledning och givande av feedback i sfären av läkarens kliniska arbete, och det har blivit kopplad till personlig, yrkesmässig och inlärningsmässig utveckling, och har som målsättning att förstärka patientsäkerheten. I samband med klinisk arbetshandledning försöker man öka på reflexionen i arbetet samt den yrkesmässiga utvecklingen. Klinisk arbetshandledning har använts mycket speciellt bland allmänläkarna. Balint gruppdiskussioner är den mest utbredda metoden av klinisk arbetshandledning bland läkarna. Trots det har det publicerats få sådana undersökningar som uppfyller de forskningsmässiga kraven samt utforskar hur mycket klinisk handledning används och behövs och hur mycket nytta det kan ge. I denna forskning undersökte man materialet som diskuterades i Balint grupper bestående av läkarstuderanden, användningen av klinisk arbetshandledning för allmänläkare och behovet för det, känslomässig utmattning bland dem samt drag som kunde förknippas med de här faktorerna samt upplevelser relaterade till arbetet.

I denna forskning användes blandade metoder. Data bestod av tre olika material, och både kvalitativa och kvantitativa forskningsmetoder användes. I den första delstudien analyserade man 15 Balint gruppdiskussioner av 9 studeranden från den tredje till den sjätte årskursen på basen av fältstudier. Baserat på Grounded theory gjorde man en tematisk innehållsanalys av gruppdiskussioner. Materialet till den andra delstudien bestod av resultaten till den årliga läkarenkäten av Finlands Läkarförbund för året 2008. På basen av resultaten undersökte man i synnerhet hur mycket specialisterna i allmänmedicin (n=1252) deltog i och upplevde behov av klinisk arbetshandledning, samt vilka faktorer var förknippade med deltagandet eller behovet av klinisk arbetshandledning samt hur deras särdrag och upplevelser av patienternas krav, som de presenterat på mottagningen, var relaterade till de här upplevelserna. I den tredje delstudien analyserade man resultaten från en enkät som skickats till hälsocentralläkare (n=165) och man redogjorde för hur allmänt känslomässig utmattning är och vilka drag hos läkarna är förknippade med det. I den fjärde delstudien använde man sig av resultaten från samma enkät som i den tredje delstudien och man utforskade läkarnas (n=165) deltagande och upplevt behov av klinisk arbetshandledning samt vissa arbetsrelaterade faktorer med klinisk arbetshandledning.

Den första delstudien gav som resultat att läkarstuderande reflekterade i Balint grupper sin professionella identitet som läkare, de känslor som patienterna hade uppväckt hos dem och sin egen professionella utveckling. De flesta fallen som studeranden tog upp på Balint diskussioner hade

samband med möten med patienterna, men studeranden hade också ett behov av att bearbeta även andra upplevelser i form av enskilda fall som hänt under deras läkarstudier, samt hur man kan förena läkaryrket och privatlivet. De utlösande sakerna som ledde till berättelserna var oftast möten med svårt sjuka eller döende patienter, eller situationer där patienter eller professionella hade uppfört sig på ett bryskt sätt. Därtill att bli tvungen att bevittna orättvisa, och att man upplevde en diskrepans mellan de egna värden och situationen i samband med undervisningen utlöste behovet av att få berätta om dem. I samband med de flesta fallen var studerandes framtida identitet som läkare direkt tema för diskussionen, och indirekt behandlade man detta tema i samband med de flesta falldiskussionerna genom att fundera på upplevelser av samarbete med negativa rollmodeller, eller andra yrkesgrupper i hälsovården. Känslor som uppdagades i samband med patientkontakter var också ett mycket vanligt tema i diskussionerna. Det verkade som att det både uppdagades och att man reflekterade tema som var viktiga för de studerandena på Balint diskussionerna. Därtill såg det ut som att man med hjälp av denna form av aktivitet kan befrämja läkarstuderandes professionella utveckling.

Enligt den andra och den fjärde delstudien har en stor del av allmänläkare upplevelser av arbetshandledning. I den andra delstudien, i den stora läkarenkäten av Finlandsläkarförbund, 42 % av allmänläkarna och, i den tredje delstudien, 35 % av svaranden av samplen hade antingen tidigare eller aktuella erfarenheter av klinisk arbetshandledning. Därtill upplevde 25 % av den stora enkätundersökningen och 36 % av samplen behov av klinisk arbetshandledning. I materialet för den andra stora delstudien hade de kvinnliga specialisterna i allmänmedicin mer erfarenheter av klinisk arbetshandledning och de kände oftare behov av att delta i det än deras manliga kolleger. Därtill upplevde de yngre svaranden oftare behov av arbetshandledning än de äldre. Vidare kom det fram (i studie II) att det faktum att läkaren hade erfarenheter och behov av klinisk arbetshandledning var förknippad med en aktiv tendens att vidareutbilda sig, och till upplevelsen av att man ofta möter på sin mottagning sådana patienter som kräver visa mediciner eller undersökningar. I samplen av den fjärde delstudien var upplevelserna av den kliniska arbetshandledningen förknippade med högre ålder, när både upplevelsen av den kliniska arbetshandledningen och det upplevda behovet av det var relaterade till upplevelsen av att arbetet sliter på känslolivet.

I den tredje delstudien upptäckte man att tillfredsställelsen med arbetet bland hälsovårdscentralläkarna var hög i genomsnitt, men samtidigt var 18 % emotionellt utmattade, 30 % upplevde ensamhet på arbetet och 32 % ansåg att de måste jobba för mycket. Lång arbetserfarenhet,

upplevd ensamhet på jobbet samt att man hade begått ett misstag på arbetet förutspådde känslomässig utmattning, när bra tolerans för osäkerhet skyddade mot det.

1. Introduction

The verb supervise comes from Latin and has the literal meaning of overseeing (*super* – over, *videre* – look, see) (<http://www.etymonline.com/index.php?term=supervise>). Overseeing has connotations of control but also connotations of empowerment (Burton & Launer 2003).

Supervision is about helping a supervisee to reflect on work issues in a non-judgemental way (Launer 2006). Supervision aims to assist the development of professional skills and enhance reflective practice and control the quality of work (Lyth 2000, Owen & Shohet 2012, Tomlinson 2015).

The origin of the term “clinical supervision” (CS) is from professions outside medicine (Launer 2006). In the late 19th century in England CS was used in charity work (Kadushin & Harkness 2002). Clinical supervision in medicine has been defined as provision of monitoring, guidance and feedback on matters of personal, professional and educational development in the context of the physician’s care of patients, with the aim of maximizing patient safety (Killminster & Jolly 2000, Killminster et al. 2007). In practice, physicians reflect on their own work with the help of an educated supervisor. CS can be focused on work and patients, on one’s work role, work experiences and emotions with the aim of professional development and performance improvement (Lönnqvist 2014). CS has been suggested to have three functions, administrative (normative), educational (formative), and supportive (restorative) (Proctor 1986).

Among general practitioners (GPs) the earliest and probably the most popular method of CS has been Balint group supervision, but other methods have also been introduced (Salinsky 2003, Sackin & Salinsky 2012). Balint groups have been suggested to enhance GPs’ job satisfaction and self-efficacy and prevent burnout (Kjeldmand 2006, van Roy 2015). According to descriptive reports CS has been disseminated widely, and the use of it is very common (Salinsky 2002). However, studies systematically exploring the prevalence of CS are lacking.

Clinical supervision is used in many helping professions (Killminster et al. 2000, Launer 2006). It has been available for pre-graduate medical students, medical trainees and non-specialist and specialist physicians (Tredgold 1972, Killminster & Jolly 2000, Salinsky 2002, Burton & Launer 2003). Balint groups have been available for medical students in many countries since the 1960s (Luban-Plozza 1995). It has been argued that the availability of CS for medical students and medical trainees has been limited (Ryynänen 2001, Killminster et al. 2007). However, proper studies exploring the discussion themes and processes in student Balint groups are sparse.

There are several studies reporting high levels of psychological distress, emotional exhaustion and even burnout among GPs (Goehring et al. 2005, Soler et al. 2008, Vestedt et al. 2013), which might imply a need for CS among GPs. Studies directly exploring GPs' needs for CS and its associated factors are lacking.

In this study we explored medical student Balint groups by analysing the contexts and triggers of issues brought up, and the themes in, group discussions. In addition, we examined the use of CS and the need for it among GPs, and explored how GPs' characteristics, work experiences and emotional exhaustion are associated with these issues.

2. Literature review

2.1 Clinical supervision

2.1.1 Historical background

Supervision developed outside medicine in other helping professions (Launer 2006). The term clinical supervision has its origin in psychotherapy, counselling and social work (Bishop 1998). The historical background of CS is in charity work. In the late 19th century in England and the USA charity organizations provided voluntary workers to help people and families in distress. These charity workers were provided with support to endure and develop in their work. This has been considered as an early form of modern supervision (White & Winstanley 2014).

Psychoanalysis has been influential in the development of CS, although psychoanalysts prefer to use the term supervision instead of CS. Sigmund Freud, the founder of psychoanalysis, has been proposed to be the first supervisor in this field. In the early years of psychoanalytic psychotherapy in the 1920s Freud started to provide training to other less experienced therapists and the development of psychoanalytic supervision began. Its approach, frame of reference and practice have evolved with time. Today, supervision is an integral part of psychoanalytic psychotherapy training, and also the training in most other psychotherapy styles (Creaner 2013). The ideas of psychoanalytic thinking have also been influential in the development of CS in medicine, especially the Balint group method (Balint 1985, Balint 1986).

The church has been important in the development of CS. In practically all western churches priests have long traditions in sharing issues with, and receiving supervision from other priests. Concepts such as pastoral care and pastoral counselling have their roots in the USA in the 1920s. Thereafter, the education of priests was developed to include issues of psychiatry, psychology and social work to equip them better to help people in need and to provide counselling (Steere 2002).

In the 20th century supervision was spread to education, administration and nursing, and other fields of healthcare, and in the 21st century also to the business world (Paunonen-Ilmonen 2001).

Of the medical specialties, CS has been used in psychiatry from early on, and it has been strongly influenced by the psychoanalytic tradition. In psychiatry it is essential to understand psychotherapeutic processes thoroughly. Specialist training in psychiatry usually includes training of psychotherapeutic skills, and CS is an essential part of this process. However, in many countries specialists in psychiatry use supervision less often. This could be due to a lack of supervisors but also because people may feel ashamed to ask for supervision and this may be a barrier to the use of CS in psychiatry (MacDonald 2002; Gold 2004). However, research in this field is still sparse (MacDonald & Ellis 2012).

Balint group supervision is a method of CS that has been available in general practice since the 1950s. Balint groups were started by psychoanalysts Michael and Enid Balint, in collaboration with local GPs in London. The method has spread worldwide and is used, among others, by medical students (Salinsky 2002).

The Finnish-born social worker Helvi Boothe brought CS to Finland from the USA in the 1920s. First it was introduced to child welfare, and later, in the 1950s, to social work and in the (evangelical) Lutheran church (Korppi-Tommola 2008). In 1983 the Ministry of Social Affairs and Health gave out a memo concerning a recommendation for the organization of CS in social- and healthcare (STM 1983). The Finnish Mental Health Law (4§), launched in 1991, included a requirement that all institutions caring for patients with mental-health problems should provide CS (<http://www.finlex.fi/fi/laki/ajantasa/1990/19901116>). Later, the Mental Health Edict obliged communities to ensure that CS provided should promote preparedness of their personnel to take care of mental-health problems in the population (<http://www.finlex.fi/fi/laki/ajantasa/1990/19901247>). In 2010 a Finnish Parliament proposal was made to make CS statutory in all healthcare to enhance work endurance, satisfaction, professional skills and learning in healthcare (Väättäinen 2010).

In the Finnish healthcare system, CS has the longest tradition in psychiatric care, where CS activities were started in the 1950s (Kärkkäinen 2013, Lönnqvist 2014). Among Finnish GPs the development of CS was strongly influenced by Juhani Rekola. He was a psychiatrist who educated himself in the Balint method abroad and started to lead Balint groups for health-centre physicians in Espoo in the 1970s (Rekola 1994). Balint groups for GPs working in community health centres were also initiated in Oulu and in Helsinki in the 1970s (Heiskanen 1985). There has been a study project on Balint groups among occupational health physicians in 1988–90 (Olkinuora & Taskinen 1991).

In Finnish medical schools CS has not been part of statutory basic medical curricula. Balint groups for medical students have been available in the 1990s at the University of Helsinki (Tupola 1990), and at the University of Oulu (Ryynänen 2001). Medical students' educational supervision was developed at the University of Helsinki in the early 2000s, where they received special tutoring during education concerning general practice in primary healthcare centres (Koponen 2012, Pitkälä et al. 2014).

2.1.2 Definitions

In medicine CS refers to complex activity that can occur in a variety of settings. It also has various definitions, functions and modes of delivery (Killminster & Jolly 2000). It has been proposed that CS in medicine should be considered as an umbrella term covering all professional encounters that include an element of supervision, i.e. management, training, assessment and remediation (Clark et al. 2006). The term *clinical supervision* refers to activities in medicine that consist of reflective conversations about active clinical cases from the supervisee's working life (Burton & Launer 2003).

Based on a review of literature concerning supervision of medical trainees and physicians in specialist training, Killminster and Jolly (2000) have proposed CS in medicine to be defined *as activities that provide monitoring, guidance and feedback on matters of personal, professional and educational development in the context of the doctor's care of patients*. Furthermore, CS should include preparedness to reflect on one's strengths and weaknesses in particular clinical situations in order to maximize patient safety. This definition of CS was proposed to be suitable for physicians in all phases of their professional career (Killminster & Jolly 2000). Later, in an educational paper,

this definition was mainly used to refer to educational supervision of medical trainees or physicians in specialist training (Killminster & Jolly 2007).

Burton & Launer (2003) have described CS in medicine as a particular kind of professional conversation in which time, space and professional support are provided for colleagues so that they may reflect on their encounters with patients and colleagues. CS can be carried out in many ways and in various kinds of settings. However, in all cases the common denominator of CS is that it offers an opportunity for reflection, and is non-judgemental. Burton and Launer (2003) also proposed that in primary care the most useful definition of CS is “facilitated learning in relation to live practical issues”. Launer (2006) proposed that CS can be understood as an externalized version of reflective practice. In the same manner as reflective practice is a kind of inner conversation about one’s own work, CS is a reflective conversation about one’s work with another person. Thus, all one-to-one encounters aimed at promoting competence and reflective practice, including mentoring and coaching and concepts such as “case discussion” and “clinical case analysis”, can also be understood as CS. Therefore, there is an inseparable connection between CS and reflective practice. CS nurtures reflective practice, while reflective practice in turn leads to a thirst for CS (Launer 2006).

Launer (2006) has described different types of supervision. *Professional* supervision is regular, extended one-to-one meetings between established practitioners, mainly to discuss specific issues. *Informal* supervision is opportunistic exchange that is generally short and arises spontaneously in the context of everyday work. *Managerial* supervision is something that is carried out by someone with direct management responsibility for the supervisee. *Remedial* supervision is a form of supervision that takes place when a regulatory agency has concerns about someone’s performance. *Mentoring* is guidance and support offered by a more experienced colleague. *Coaching* is a form of supervision aimed at unlocking someone’s potential to maximize her/his performance. *Educational* supervision is organized clinical supervision taking place in the context of recognized training (Launer 2006).

In work supervision a supervisee examines his/her work, work role and collaborative relationships in interaction with a supervisor with the aim of developing him/herself and the associated work community (Paunonen-Ilmonen 2001, Lönnqvist 2014). Among physicians, work supervision can be used to explore and reflect on clinical work, clarify the work role, strengthen professional identity, support professional development, manage one’s own work, enhance coping at work and work career, develop collaboration and team work, and support the work of medical directors

(Lönnqvist 2014). It has been proposed that work supervision for physicians should be seen as self-directed observational learning emphasizing the role of experiences and emotions. Work supervision is proposed to be a good tool to lessen the emotional burden of a physician's work. In addition, it is recommended to use CS more often as a preventive method instead of using it only in critical situations (Patja & Eronen 2014).

In a qualitative study based on interviews of seven GPs experienced with CS in New Zealand, Wilson (1999) defined CS as a method of professional maintenance and development that is part of a professional support system among GPs. He suggested that CS should be distinguished from continuing medical education, peer groups and personal psychotherapy, although it shares some similarities with these aspects. CS provides GPs with a safe place for professional reflection, assists in resolving personal and professional work-related issues, encourages GPs to be more aware of themselves in the working environment, and helps them to gain insight into physician–patient relationships with the help of a supervisor (Wilson 1999).

2.1.3 Aims of CS in medicine

Clinical supervision in medicine is aimed at promoting professional development and ensuring patient safety (Killminster & Jolly 2000). It has been proposed that CS in medicine is much about feelings and communication and its aims are connected to clinical effectiveness, evidence and best practice. In specialist training the educational aims of CS may be emphasized, but the supportive function of CS is also important (Burton & Launer 2003).

Launer (2006) has listed several purposes of professional CS. It is a defence against feelings of disorientation, disillusionment and burnout. It is a framework for clarifying human values and a way to recover meaning in social relationships. It provides skill rehearsal and access to appropriate role models in the workplace (both personally and collegially). It is a device for evaluating and disseminating best practice in healthcare. And finally, CS is a way to acquire emotional literacy to deal constructively with emotions in a mutually beneficial way (Launer 2006).

2.1.4 Functions of CS in medicine

The aims of CS are convergent with its functions. A model of functions of CS offers a framework to the complexity in the field. Kadushin has developed empirically a model of functions of CS in the context of social work (Killminster & Jolly 2000, Kadushin 2014). A nursing scientist, Brigid Proctor, further developed Kadushin's model theoretically. The functions of CS described by Proctor have also been accepted for CS in medicine (Killminster & Jolly 2000, Jackson-Bowers & Holmswood 2002, Burton & Launer 2003). According to Proctor, CS has three functions: normative, formative and restorative functions. Other terms used for these functions in corresponding order are managerial, educational and supportive (Killminster & Jolly 2000).

The normative function

The normative (managerial) function of CS is focused on on-going monitoring, evaluation and quality-control aspects of professional practice. It concerns maintaining and ensuring the effectiveness of everyday clinical work. The normative function helps to make sure that professional standards, professional/organizational roles and ethics are met; it includes a gate-keeping and quality-control function (Proctor 1986, 2000). The normative function refers to accountability, best-practice principles, ethical and legal considerations, compliance with agency and organizational procedures, and professional standards for the wellbeing of clients (Creaner 2013). It has been argued that CS without normative function may be anarchic and ineffective (Burton & Launer 2003).

The formative function

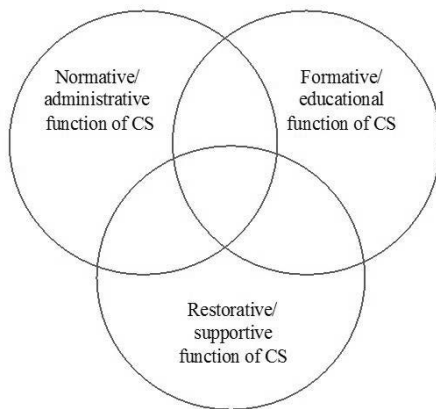
The formative (educational) function of CS is focused on development of knowledge and skills. It refers to learning and development of professional identity. It is concerned about developing skills, abilities, and understanding of the supervisee through shared exploration of and reflection on her/his work. It aims at enhancing the supervisee to become increasingly reflective upon her/his practice within the supervision process (Proctor 1986, 2000, Creaner 2013).

The restorative function

The restorative (supportive) function of CS is focused on health and wellbeing. It aims to support the supervisee and refers to the task of refreshment of CS (Proctor 1986, 2000, Creaner 2013). The restorative function involves emotional support and reflection on the stresses and interpersonal tensions in clinical practice. It pays attention to emotional needs of a supervisee, how they have

been emotionally affected by work with patients, and how to deal with these emotions constructively (Proctor 1986). The restorative function of CS allows the supervisee to work through difficult feelings such as inadequacy or guilt (Wilson 2000). When restorative, CS supports and holds the supervisee. It provides restoration by assisting the supervisee in managing challenges, promotes resilience, provides an opportunity to restore equilibrium and to rehearse how to manage situations differently (Owen & Shohet 2012). It has been argued that if CS is not intrinsically supportive it is unlikely to be effective (Proctor 2001, Burton & Launer, 2003). The normative, formative and restorative functions of CS are overlapping. Usually each session of CS contains elements of each function (Proctor 1986, 2001) (Figure 1).

Figure 1: The three functions of CS and their overlapping nature (modified from Proctor 1986)



2.2 CS in basic medical education

Educational supervision is important in medical education while moving from theoretical understanding into practical competencies (Killminster & Jolly 2000; Killminster et al. 2007). Educational supervision aims to develop “best practice” with a more experienced colleague that may be a tutor, mentor or role model (Owen & Shohet 2012). Besides good technical and cognitive

skills physicians need good emotional skills to be used with maturity, wisdom, compassion and integrity (Novack et al. 1997). If the human need to share experiences, vulnerabilities and uncertainties is not acknowledged, and too little or no attention is paid to personal development during medical education, future physicians are left vulnerable and poorly prepared (Quill & Williamson 1990).

According to a literature review, educational supervision may have a positive effect on patient outcomes, and the lack of it may be harmful to patients. However, educational supervision may lead to behavioural changes relatively quickly, whereas changes in thinking and attitudes take longer (Killminster & Jolly 2000). It has been argued that opportunities cultivating students' emotional awareness in relation to self and others, or enhancing the ability to manage one's own emotions effectively are too few in current medical education (Shapiro 2011). According to the literature the availability of supervision for medical trainees and specializing physicians is inadequate (Killminster & Jolly 2000).

2.2.1 Medical students' professional development

Professionalism and professional development are often used as synonyms. However, professionalism is something as such and professional (and personal) development is a means to gain something (Birden et al. 2014).

Professionalism in medicine is a concept that has been challenging to define. It has been viewed either as a set of attributes to be mastered, or an ethos grounding an approach to medical practice (Birden et al. 2014). Professionalism represents a commitment in placing interests of a patient ahead of those of a professional. Professionalism is derived from the verb 'to profess', which carries the meaning 'to promise'. Professionalism in medicine is about a social contract; i.e. that health professionals have promised their community to place the interest of their patients foremost. Professionalism is also a subset of healthcare ethics, an application of virtue ethics. A commitment to put patients' interests first requires that one integrates a set of values, attitudes and behaviours into the core of one's being, and applies these in practice. This practical wisdom and skill need to be cultivated over a lifetime (Brody & Doukas 2014.)

Cruess et al. (2015) reviewed literature on medical students' professional identity formation and socialization. Professional identity formation is a process that must be compatible with the process

of personal identity development. According to social learning theory, the acquisition of a professional identity within medical education involves individuals with existing personal identities interacting with their practice community. Multiple factors are involved in the process of socialization and professional identity formation. Existing personal identity, family and friends, isolation from peers, learning environment, healthcare system, formal teaching and assessment, self-assessment, symbols and rituals of the profession, attitudes and treatment of patients, peers, healthcare professionals and public may influence the process of socialization. However, the most powerful factors in the socialization process are unconscious and conscious effects of role models and mentors, and of individual's clinical and non-clinical experiences. Reflection on clinical and non-clinical experiences is fundamental to socialization. The impact of reflection is strengthened when it is facilitated by a role model or a mentor or carried out as group activity. A scheduled time for guided reflection may contribute to successful professional identity formation by deepening students' understanding as to who they are and who they wish to be (Cruess et al. 2015).

It has been proposed that promotion of professional development in medical education should include support as regards self-awareness, maintaining a balance between personal and professional roles, recognition of ethical dilemmas, and exploring and resolving interpersonal conflicts in professional relationships (RCDSC 2000).

In Finland there have been some reports that basic medical education does not always provide enough support for the professional development of the students (Vainiomäki 1995, Ryyänänen 2001). Ryyänänen (2001) has argued that medical students should be provided with more possibilities during their education to elaborate dilemmas concerning professionalism, communication skills, encountering death, and psychosocial aspects of medicine.

Empathy

Empathy is a key dimension of physicians' professionalism, and should also be nurtured in basic medical education. The concept of empathy was first referred to by the German word *Einfühlung* in the context of art and aesthetics. The word *Einfühlung* was brought to psychology in late 19th century, and the psychoanalyst Sigmund Freud used this word to describe the psychodynamics of putting oneself in another person's position. The term empathy derives from the Greek word *empathia*, which means the appreciation of another person's feelings. The first time the term empathy was used in medicine was in 1918, when describing its significance in the relationships between a clinician and a patient for facilitating diagnostic outcomes (Hojat 2007).

Clinical empathy is a complex phenomenon having different definitions. In most contexts clinical empathy is considered to include three dimensions. Cognitive empathy is the ability to recognize and understand another's experience. Affective empathy means an ability to resonate emotionally to other person's emotions. The third aspect of empathy is verbal or non-verbal acknowledgement of other person's feelings, and a response in a way that recognizes the emotional state of a patient. Sometimes a fourth dimension is added. Ethical empathy is an internal altruistic force that motivates the practice of empathy (Halpern 2003, Decety et al. 2014, Finset & Ørnes 2016).

It has been proposed that clinical empathy should be considered as emotional labour, which is performed through deep acting and surface acting. In deep acting one tries to alter one's own internal experience, and to act on emotions that are actually experienced. In surface acting one imitates emotional display by faking facial expressions, voice or posture. Both forms of emotional labour are necessary for physicians in clinical practice, and need to be consciously developed, nurtured, and used throughout physicians' medical careers (Larson & Yao 2005).

In medicine clinical empathy is associated with improved patient satisfaction, increased adherence to treatment and fewer malpractice complaints. Patients' perceptions of their physician's empathy are related to better health outcomes (Decety et al. 2014). According to a systematic review, GP's empathy increased patient satisfaction and adherence to treatment, decreased patients' anxiety and distress, led to better diagnostic and clinical outcomes, and strengthened patients' enablement (Derksen et al. 2013). Empathy may also protect physicians from psychological distress and burnout, make practicing medicine more meaningful and enriching, and increase general wellbeing (Halpern 2003, Decety et al. 2014).

According to the literature a significant decrease of empathy occurs in medical students during their time at medical school. Self-assessed empathy has been reported to decrease significantly after the third study year, when the students enter the clinical phase of their studies, and start to have more patient contacts. Empathy also decreased during clinical practice in specialist training. Some investigators also report significant increases in cynicism during the course of medical school (Neumann et al. 2011). An increase of cynicism during medical school is not a new phenomenon. In the 1950s a survey showed that the mean score of cynicism among medical students was significantly higher in the fourth than in the first study year (Eron 1955).

A systematic review revealed that empathy can be developed, supported and increased among medical students, residents and clinicians through interventions (Kelm et al. 2014). Effective

interventions in this respect might be mindfulness-based stress reduction, self-awareness training, reflective discussion of meaningful experiences, and use of Balint groups (Neumann et al. 2011).

2.2.2 Psychological distress during medical studies

The phenomenon of psychological distress and emotional disturbances among medical students is not new. In the 1930s there was a report that 46 % of senior medical students in Pennsylvania University had neurotic handicaps and there are comparable reports from the 1940s and 1950s in the USA (Eron 1955). Recent systematic reviews and a meta-analysis on indicators of psychological distress among medical students revealed a high prevalence of depression and anxiety among these students. The levels of psychological distress among medical students were higher than in the general population and age-matched peers by the time of the later years of training (Dyrbye et al. 2006, Rotenstein et al. 2016). According to a meta-analysis including 129 123 medical students from 47 different countries the summary estimate of depression or clinically significant depressive symptoms was 27 % and that of suicidal ideation was 11 % (Rotenstein et al. 2016). In an US multi-institutional prospective cohort (n=858) and cross-sectional cohort (n=2248) study 11 % of medical students had serious thoughts of dropping out. Burnout predicted these thoughts. In the prospective cohort 34 % of medical students had chronic burnout (Dyrbye et al. 2010).

According to a literature review, psychological distress (e.g. burnout, low sense of well-being, reduced quality of life, depression) is the main cause of empathy decline among medical students and physicians in specialist training (Neumann et al. 2011). This might reflect a need for support among them. In a qualitative study, Dutch medical students (n=19) had difficulties in upholding the behaviour they thought was expected from them in their role. This also affected how and with whom they shared their emotional experiences. The students preferred to talk to fellow students, friends or family members (De Vries-Erich et al. 2016). Atkinson and Rosenstock (2015) have argued that management of psychological distress is given too little attention in medical curricula (Atkinson & Rosenstock 2015).

2.2.3 Balint groups for medical students

In the 1950s the psychoanalyst Michael Balint proposed training medical students in psychotherapy and he considered that the Balint group method might be suitable for this (Balint 1957). Balint group work has a psychoanalytic background (Balint 1985) and its methodology and aims are well defined in the literature (Salinsky 2003, Sackin & Salinsky 2012, Van Roy et al. 2015). Use of Balint groups has been a working method to support the professional and personal development of medical students (Salinsky 2002).

The Balint group method

Michael Balint was originally a Hungarian GP who later became a psychoanalyst. In the 1930s he started seminars in Budapest to study the psychotherapeutic possibilities and potentials in GPs' work. Due to the historical situation, his work was interrupted, and he became an emigrant in England. Later, he was accepted as a consultant in the Tavistock Clinic in London, where he started to work with social workers, assisting in their supervisory case-discussion seminars. In the late 1940s and early 1950s a group of London GPs recognised a need to gain more insight into psychological aspects of their patient care. In 1950 Michael Balint and his wife, psychoanalyst and social worker Enid Balint, started to work with these GPs in the Tavistock Clinic, arranging seminars called "research cum training". This group became the first of the Balint work groups (Johnson et al. 2014).

Michael Balint wanted to contribute towards a broader understanding of a physician's personality as a tool in clinical work. According to Balint, the physician as a drug is a powerful tool, and this tool should be acknowledged, developed and supported. The physician's person, her/his feelings and reactions constitute a key diagnostic and therapeutic instrument. In medicine, Balint work groups aim at enhancing participants' understanding of physician-patient relationships and the development of their own professional personality. The groups are oriented to increase their members' self-knowledge and understanding of the transference and counter-transference phenomena in a safe and supportive atmosphere. According to Balint, the ultimate goal of Balint group work is a limited but considerable change in the physician's personality (Balint 1986).

In practice, Balint groups are monthly or bi-weekly 90-minute-long regular meetings of a stable group led by a Balint group supervisor usually educated for one to two years, discussing cases. In traditional Balint work a case is a participants' patient case that is discussed freely without notes in the group (Balint 1986). Balint groups consist usually of 8–10 participants and an educated

supervisor with the background of a GP, psychiatrist or psychologist (Salinsky 2000). The role of the Balint group supervisor is to facilitate group discussion, and to take care that the group is safe, non-judgmental and focused on a case. The Balint group supervisor is not an advice-giving consultant (Balint 1986, Salinsky 2003, Pinder et al. 2006, Sackin & Salinsky 2012).

Although the cases in Balint group discussions are patient cases in participants' working lives, Balint groups are not oriented to solve clinical problems. They are an arena to share and reflect on experiences with patients who have troubled the participant's mind for some reason, and to explore and organize the thoughts, feelings and fantasies that the case discussion evokes (Balint 1986, Pinder et al. 2006, Sackin & Salinsky 2012). A Balint group represents an arena to refine initial emotional experiences in clinical work. Group discussions have the potential to make the participants more aware of their own emotions and feelings, enabling these to be analysed, organized and subsequently controlled. A physician's emotions and feelings can benefit patients if they are tolerated and understood better by her/him (Balint 1986, Salinsky & Sackin 2000). Balint groups promote a physician's sensitivity to the emotions of not only the physician, but also those of the patient (Salinsky 2000, 2003). Balint groups may support physicians in coping with work pressures and alleviate psychological distress, but they are not a form of psychotherapy (Salinsky 2000, 2003, Kjeldmand & Holmström 2008). It has also been argued that "understanding the patient as a person" is the main goal of Balint work (Diaz et al. 2015).

Participation in Balint groups requires a stable psychological condition, an open mind, and an interest in working according to this method. Balint groups do not suit or serve everyone (Balint 1957, Johnson et al. 2003, Kjeldmand & Holmström 2010, Sackin & Salinsky 2012).

Use of Balint groups for medical students

In the literature there are a number of reports on student Balint groups in various countries over time. Michael Balint supervised first-clinical-year medical student Balint groups at the University College Hospital in London between 1962 and 1969 (Balint 1969, Tredgold 1972). He argued that Balint group work for medical students should be organized on a voluntary basis, and that the method may not suit everyone (Balint 1957). In 2004 the same hospital again started to offer Balint group work to voluntary 1st year medical students as part of the curriculum. About 30–40 % of medical students participated yearly in Balint groups (Yakeley et al. 2011). Student Balint groups have been reported in Sweden (Billström et al. 1977, Kaij 1977), South Africa (Levenstein 1981, 1982), Italy, Germany (Luban-Blozza 1989, 1995), the UK (Brock & Stock 1990, Norell 1991), the

USA (Brazeu et al. 1998), Austria (Söllner et al. 1992), Poland (Salinsky 2002), Australia (Parker & Leggett 2012, 2014), Israel (Perry et al. 2013) and France (Airaganès et al. 2014).

In Finland student Balint groups were available between 1980 and 1990 at the University of Helsinki as part of a voluntary study model called “general iatrology” (Tupola 1990). At the University of Oulu medical students’ Balint groups were started in the 1990s as a response to students’ initiative. The groups were initially called “junior Balint groups” but were re-named as “reflection groups” during the process. The background of reflection groups is in family systems psychotherapy, and the focus on students’ experiences may have a broader scope than encounters with patients (Ryynänen 2001).

The goals of Balint groups for medical students have been to teach psychotherapeutic aspects of a physician’s work (Balint 1957) and to educate the students in “whole-person medicine”, which later became “patient-centred medicine” (Tredgold 1972). The groups have aimed to add understanding of the psychological aspects of a physician’s work and physician–patient relationships (Levenstein 1981, Luban-Blozza 1995, Brazeau et al. 1998), to study conscious and unconscious aspects of the relationships between students and patients, to add understanding of socio-psycho-somatic aspects of illnesses (Söllner et al. 1992), and to offer training in the emotional domain of a physician’s work (Luban-Blozza 1995, Brazeau et al. 1998, Perry et al. 2013, O’Neill et al. 2016). In addition, student Balint groups have aimed to be a forum to discuss individual experiences, to integrate personal developmental challenges and problems into theoretical and practical medical studies (Tupola 1990), and to support professional and personal development (Brock & Stock 1990). Student Balint groups have also been used as a means to buffer against psychological distress, burnout and erosion of empathy in medical training (Perry et al. 2013, Atkinson & Rosenstock 2015).

Studies of Balint groups for medical students

There are several studies reporting the outcomes of student Balint groups. Most papers are descriptions of the activity, practical arrangements, participant feedback and group-leader considerations. Some of the descriptive articles have reported the contents of student Balint-group discussions. However, in-depth studies on student Balint groups are sparse (see Table 1).

Söllner et al. (1992) found that recurring topics in Austrian student Balint groups dealt with aggression, intimacy-detachment with patients, incurable illness and death, generation or authority conflict, depression, suicide, and sexual desires and fears (Söllner et al. 1992). Brazeau et al.

(1998) found in their qualitative analysis that the topics occurring in American medical student Balint groups dealt with feeling angry with or abused by patients, liking or disliking a patient, emotions in situations when dealing with death or breaking bad news to a patient, experiences of stress, and its effects on work with patients. In a survey among American medical students participating in student Balint groups, stressful clinical experiences were frequent among the students and they had difficulty discussing these experiences (Atkinson & Rosenstock 2015). O'Neill et al. (2016), in their study based on questionnaires and student essays, described how student Balint groups provided Australian medical students an opportunity to recognise and understand their own and patients' emotions that had arisen in clinical situations.

Table 1. Studies and reports on student Balint groups

Study, country	Design ¹	Contents	Participants	Main findings
Levenstein 1981, South Africa	D	Weekly Balint groups for 5 months. Description of students' written feedback on experience of Balint groups.	5th year medical students, n=5. Age n.a., gender n.a.	Students reported that Balint groups had helped in relating to patients, had improved their self-knowledge and understanding, and made contact with other students possible in a way that felt valuable.
Levenstein 1982, South Africa	D, F	Weekly Balint groups for 12 months. Description of students' written feedback of their experience of Balint groups at the end of the period.	6th year medical students, n=6. Age n.a., gender n.a.	Students reported that Balint groups had improved their understanding of their relationships with patients. Students brought up regrets about the neglect of coverage of emotional aspects of patient care at the teaching hospital.
Söllner et al. 1992, Austria	D	Weekly voluntary student Balint groups were organized for seven years (30 group sessions per year). Description of group design, problems in groups, and student feedback.	Medical students in their clinical years, n=170, females 54 % Age n.a.	The themes in student Balint group discussions dealt with aggression, intimacy-detachment with patients, incurable illness and death, generation or authority conflict, encountering depression and suicide, fears and sexual desires. In student Balint groups both patient-related self-experience and the reflection upon the students' social role in hospital were important.
Brazeau et al. 1998, USA	Q, F	64 student Balint sessions were organized. Qualitative content analysis of the group discussions, description of students' feedback.	3rd year medical students during their clerkship in family medicine, n=161. Age n.a., gender n.a.	Topics that occurred in the group discussions were feeling angry with or abused by patients, disliking or liking a patient, emotional aspects of dealing with death or breaking bad news to a patient, stress in students and in physicians and its effects on the physician-patient relationship, and the value of the discussions was rated high by the students.
Yakeley et al. 2011, Britain	RCT, Q	Voluntary participants were allocated to a student psychotherapy scheme, student Balint groups and a partial control group. The three groups were compared using a self-developed qualitative questionnaire asking the participants a series of questions about the emotional aspects of the physician-patient relationship.	Medical students in their first clinical year, n=46 Age n.a., gender n.a.	At 3 months students who had participated in either of the intervention groups scored higher in their knowledge of emotional and psychodynamic aspects of the physician-patient relationship compared with the partial control group. At 1 year participants in either of the intervention groups had significantly higher scores in their knowledge of emotional and psychodynamic aspects of the physician-patient relationship compared with baseline.
Parker & Leggett 2012, Australia	D, F	Weekly student Balint groups for six weeks during clinical rotation in psychiatry were organized. Description of students' feedback.	3rd year medical students, n=20. Age n.a., gender n.a.	The groups tended to be rated positively, but students were not certain of the value and relevance of student Balint groups in relation to their educational needs.
Lutz et al. 2013, Germany	Q	Clinical reflection training (CRT) consisting of elements of the Balint group method was organized during time at the Clinical Education Ward for Integrative Medicine, five times in groups of three to five. Semi-structured interviews were analysed qualitatively.	5th year medical students, n=18, females 12 (67 %), mean age 28 years.	The students experienced that they were not sufficiently prepared to deal with the difficult personal and interpersonal issues arising during patient care. CRT reduced stress and improved their patient care and served as a tool for professional development.

Perry et al. 2013, Israel	F	Voluntary student Balint groups were organized every second week. Participants completed questionnaires at the beginning and at the end of the process. Description of the responses.	4th year medical students, n=30, females 10 (33 %), mean age 28 years.	The students were sceptical at the beginning but acknowledged having needs for training in stress management. They felt that during the Balint group process a trustworthy relationship was built, and they could share their feelings with peers. Balint group experiences were in line with their experiences in the clinic and relevant for them as future physicians. Group leaders tended to be more positive than the students in evaluating that the groups were helpful and meaningful for the students.
Airagnes et al 2014, France.	C	Weekly Balint groups were organized in optional physician–patient relationship training for four months. Participants filled in questionnaires before and after the Balint group process. An Interpersonal Reactivity Index (IRI) and ad hoc questions were used. The responses were compared with those of a control group.	4th year medical students, in Balint groups, n=34, females 25 (74 %), mean age 22 years; control group n=129, females 76 (59%), mean age 22 years.	An empathetic approach measured by IRI increased in students who participated in Balint groups, but not in those who were in the control group.
Parker & Leggett 2014, Australia.	Q, F	Compulsory weekly student Balint groups for a period of six weeks during rotation in psychiatry in a large tertiary hospital were organized. Qualitative thematic content analysis of the students' feedback and facilitators' reflections.	3rd year medical students, n=42 Age n.a., gender n.a.	Students revealed neutral to mildly positive attitudes regarding Balint groups as an educational experience but had difficulties understanding the Balint group process. The delivery of student Balint groups was found challenging but effective. Facilitators found that student Balint groups are potentially useful in teaching clinical encounters in general practice.
Atkinson & Rosenstock 2015, USA	D, S, F	Voluntary Balint group sessions were organized eight times every other week. An electronic questionnaire for all students in their 3rd or 4th year asking about stressful clinical encounters and about Balint group experiences was performed.	3rd and 4th year medical students, n=46 (15.9 %) responded to the survey; females 34 (74 %). 10 students participated in the Balint group process and 6 responded to a follow-up survey, 5 (83%) of them were female.	Stressful clinical experiences were frequent among medical students. The students had difficulty discussing these experiences. Balint groups helped the students to explore their feelings and perceptions about patients, to empathize with patients, to understand that also others have difficulties with patients, and made them feel differently about the patients.
O'Neill et al. 2016, U.K.	Q	Voluntary student Balint groups were organized weekly for six weeks in a pilot study. Questionnaires before and after the Balint group process, essays on experiences in the group by the students, and the leaders' observations were described.	3rd year medical students, n=6, age n.a., females 1 (17 %).	Balint groups provided the students an opportunity to recognise and understand their own and patients' emotions arising in clinical encounters. Traditional Balint method needed to be modified for the students since they did not have much experience of physician–patient relationships.

C = controlled study, D = descriptive study, F = feedback, n.a. = not available, Q = qualitative study, RCT = randomized controlled trial, S = survey.

There are only two studies that have included comparison groups in testing the effects of student Balint groups. In a small study Yakeley et al. (2011) compared three groups of medical students, who had participated either in a student psychotherapy scheme, Balint groups, or were controls, finding that participants in both of the intervention groups had higher scores in knowledge of emotional and psychodynamic aspects of the physician–patient relationship than those in the control group. In another small study, Airaganes et al. (2014) compared 4th year medical students who had participated in student Balint groups with those who had not participated in them, and found that an empathetic approach measured by means of the Interpersonal Reactivity Index (IRI) increased among Balint group participants but not among those who were in the control group. Table 1 summarizes studies of student Balint groups.

2.3 CS among general practitioners (GPs)

Clinical supervision has been used in general practice since the 1950s (Balint 1986, Salinsky 2003). Balint group methodology is one of the earliest and most popular CS methods among GPs (Salinsky 2003, Sackin & Salinsky 2012). Several other CS methods have also been used by GPs, and most of them have been group-based (Burton & Launer 2003, Launer 2006, Owen & Shohet 2012).

2.3.1 Methods of CS used by GPs

Balint groups

The background, development, aims and methods of Balint groups are described in section 2.2.3 in connection with medical students.

Since the 1950s descriptions of Balint groups by GPs have been reported in most European countries, including Finland, and in the USA, Australia, New Zealand, Israel and China (Virtanen 1987, Salinsky 2002, Lustig 2006, Jing et al. 2013). Balint groups have also been included in GP specialist training programmes (Salinsky 2002, Johnson et al. 2014). In addition, a web-based transatlantic Balint group for physicians specializing in general practice (Antoun et al. 2014) and a web-based group for Australian rural GPs and physicians specializing in general practice have been reported (Koppe et al. 2016).

Modifications of the traditional Balint method have also been implemented in general practice. Balint-style groups using family systems approaches have been reported as part of innovative continuing medical education in the USA (Botelho et al. 1990). It has been argued that young physicians have a need to bring up topics other than traditional patient cases, such as difficulties in reconciling their hospital training with the human uncertainties of general practice (Salinsky 2002). A small American study of a Balint group for physicians specialising in general practice showed that the possibility to choose between a professional development topic and a case discussion was experienced as satisfactory by the participants (Smith & Anandarajah 2007).

Other methods of CS used by GPs

The literature on other methods of CS used by GPs is sporadic and not much is known of their use or benefits. There are a number of methods used for CS among GPs. They share similarities but also have differences. Table 2 summarizes the reports of other CS methods used by GPs. Reflecting teams represent the most used CS method by GPs in Denmark (Nielsen & Söderström 2012) and narrative-based supervision has been developed and used by GPs in Great Britain (Halpern & Morrison 2012).

Table 2. Methods of CS other than Balint groups that have been used by GPs.

<i>Method (references)</i>	<i>Description</i>
<i>Narrative-based clinical supervision</i> (Halpern & Morrison 2012; Launer 2003)	<i>Narrative-based clinical supervision</i> (NBCS) involves narrative-based medicine and social constructivism as frames of reference according to which every encounter is seen as a collaborative attempt to construct an agreed story about what is going on. NBCS is an opportunity for the supervisee to change a story from work through a conversation with a supervisor in which underlying assumptions and interpretations are challenged. The conversation is about an issue chosen by the supervisee and the supervisor uses a modified form of Socratic questioning, inviting the supervisee to reflect and bring up new ideas or solutions. NBCS can be practiced one-to-one or in small groups. It was initiated in 1995 in the Tavistock Clinic in London. The other name used for this method is Conversations Inviting Change (CIC).
<i>Peer supervision</i> (Hiew et al. 2003)	<i>Peer supervision</i> is a non-hierarchical professional conversation that takes place between colleagues about their work. In peer supervision colleagues can take turns being either the supervisor or supervised. Peer supervision is not about giving advice or consulting, it is shared professional reflection on work. Peer supervision can take place formally or informally, in groups or one-to-one. Peer supervision provided in self-directed learning groups is about facilitated learning in relation to live practical issues. Different techniques for learning in these groups are used and shared rules are followed. Self-directed learning groups have been used in primary care since the 1990s. These groups have been recognised to provide participants with support and motivation and they break down professional isolation.
<i>Co-tutoring</i> (Paxton & Sackin 2003)	<i>Co-tutoring</i> is based on the idea that we have the ability to solve our own problems given the right amount of support. In co-tutoring the support comes from active listening, with the listener giving complete respect to the speaker. Co-tutoring is performed in pairs or trios that are encouraged to meet regularly once a month. In co-tutoring one person starts as a speaker and the other listens actively and if there is a third person, he/she observes. In co-tutoring the listener is there to facilitate the speaker, but discussion or advice is avoided. The observer may give feedback of the discussion to the pair. In one session the roles are switched so that each participant has equal time in each role. Co-tutoring was initiated in 1994 in East Anglia and Cambridge in the UK.
<i>Mentoring</i> (Paxton & Sackin 2003)	<i>Mentoring</i> has also been used as a model of CS in general practice. Mentoring means support being offered by somebody older and wiser to somebody younger and less experienced. A number of mentoring programmes have been developed in general practice since the 1990s. The programmes have different details, but often a mentor's support is meant to enhance a younger physician's learning.
<i>Reflecting teams</i> (Nielsen & Söderström 2012)	Reflecting teams are based on ideas of systems family therapy. The method was developed by psychiatrist and family therapist Tom Andersen in the 1980s, in Norway. In a reflecting team a case, usually a patient, is presented through an interview of one participant by another participant. The supervisor gives instructions to empathize the presenting physician and the case presented. Then the group discusses and reflects on the case presented without addressing either the presenter or the interviewer. After a round of empathising with the presenting physician, the presenter is invited to make comments. Then another round is made in the group empathising with the patient. Finally the presenter summarises what the reflections in the session have brought to mind. The supervisor is active and eventually also provides some teaching. Reflecting teams represent the most used method of CS in general practice in Denmark.

The <i>Window Supervision Method</i> (Nielsen & Söderström 2012, Larsen et al. 2010, Nystrup et al. 2010)	The <i>Window Supervision Method</i> (WSM) focuses on consultation skills and is connected to a 9-step model called P-R-A-C-T-I-C-A-L for conducting consultation in general practice. The aim of WSM is to enhance the physician's skills in communicating and dealing with their patients. This model uses a chronological succession of strategies during a consultation to balance the "voices" of medicine and the life-world. It involves self-reflection and shared reflection of actions on video recordings of the participants' role-plays and real-life consultations. WSM has a rigid, structured schedule, which must be followed sequentially. Two Danish GPs and a psychiatrist developed WMS in the 1990s. This method is used in Denmark.
<i>Psychodynamic supervision in support groups led by a pastoral counsellor</i> (Eubank et al. 1991)	<i>Psychodynamic supervision in support groups led by a pastoral counsellor</i> has been used among primary-care physicians with the goals of improving understanding of the practice of medicine, reducing the stress of patient care and preventing disillusionment and subsequent impairment among physicians. Discussions in these groups have touched patient care, participants' personal values and feelings, the practice of medicine through its human components such as intimacy, fear, anger, dying, mistakes, competence, competition and separation-individuation. These groups were available in 1984–89 in the USA.
<i>Coaching</i> (Houghton 2012)	<i>Coaching</i> is aimed at helping people feel better today, and assisting them to move towards the kind of future they would like. It can be applied to any part of life and it is performed by an educated coach who helps the client to find his/her own resources to solve their own problems. Coaching can take place in a one-to-one setting or a group. Coaching has particularly been used by physicians (including GPs) in the UK for problems with colleagues, stress (due to work overload, conflict, or fear of making mistakes) or difficulties in getting things done.
<i>Peer support</i> (Morrison & Halpern 2012, Nielsen & Söderström 2012, Wilson & Howell 2004, Jackson-Bowers & Holmswood 2002)	Peer support refers to many activities under various descriptors carried out to address GPs' needs for support from colleagues. The term can refer to peer support groups facilitated by a trained peer, case conferencing, Balint groups, various education and training activities and in some instances distance-based activities such as tele-conferencing and videoconferencing. Peer support has been used by GPs in the UK, Denmark and Australia.
<i>Cognitive behavioural therapy</i> (Nielsen & Söderström 2012)	<i>Cognitive behavioural therapy</i> (CBT) is a form of psychotherapy that is used to solve current problems and change unhelpful thinking and behaviour. CBT is sometimes used by GPs in supervision.

2.3.2 Availability and use of CS among GPs

GPs' use of CS is not well known. Balint groups have been available in many countries since the 1950s, but research on their prevalence is sparse (van Roy 2015). There are reports arguing that the availability of supervision, both educational and clinical, for physicians in specialist training is often inadequate (Grant et al. 2003, Launer 2006, Busari & Koot 2007).

In the UK Balint groups for physicians in GP specialist training have been available for many decades (Salinsky 2002, Pinder et al. 2006). In Germany Balint groups are an integral part of general practice specialist training and obligatory if one is to be certified to carry out psychotherapy as a GP (Häfner et al. 2011). In Poland Balint groups are part of postgraduate training for all future specialists in general practice, while in Israel they are part of specialist training in general practice and psychiatry (Salinsky 2002). In the USA Balint groups have been offered on both an obligatory and a voluntary basis in general practice specialist training (Brock & Stock 1990, Johnson et al. 2001). In 2000, 48 % of American general practice specialist training programmes included Balint groups and in 65 % of these programmes they were obligatory (Johnson et al. 2001). In 2010 Balint groups were available in 54 % of American general practice specialist training programmes (Diaz et al. 2015).

A questionnaire study among 379 GPs in the Danish county of Aarhus showed that 73 % of GPs participated either in a continuing medical education (CME) group or in a CS group, and 19 % in both (Brøndt et al. 2008). According to the results of another questionnaire study with 215 Danish GPs, 37 % were currently participating in and 59 % had earlier experience of a supervision group. Females had participated more often than men. The "Reflecting team" method was the most common method. The second most common method used by GPs was cognitive behavioural therapy. In Denmark most supervision groups are an integral part of continuous professional development (Nielsen & Söderström 2012). Since 2007 participation in a peer supervision group has been mandatory in Danish GP specialist training, to develop their professional identity (Tulinus 2013).

In Finland Balint groups have been available as a form of CS for GPs since the very early years of general practice becoming a specialty in 1970 (Virtanen 1987, Rekola 1991). However, they have not been studied systemically. According to a survey in health centres in South-western Finland in 2004, of the GPs (n=120), 17 % had participated in CS during the previous year. Of all the GPs, 20 % had wished to participate but had had no opportunity. Female physicians had participated and

wished to participate more often than males (Jaatinen et al. 2007). Balint group work has been integrated into general practice specialist training at the University of Oulu since the 1990s (Larivaara 2009, oral communication). The use of other methods of CS in Finnish general practice is unknown.

2.3.3 Benefits of CS among GPs

Appropriate studies on the benefits of CS among GPs are lacking. There are many reasons for this. There are multiple definitions of CS, and a variety of methods used. CS as a human activity is challenging to study and operationalization of the outcome measures is lacking. Many investigators have reported participant experiences and feedback; they have used qualitative methods and many studies are sole descriptions. Those reporting feedback have explored a variety of outcomes and these are not easily comparable.

In their literature review on Balint groups van Roy et al. (2015) looked at 35 empirical and 59 non-empirical studies. Some qualitative studies suggested a positive impact of Balint groups. In addition, participants' evaluations, personal reports and reflective articles indicated a positive value. However, studies on Balint groups included very diverse research topics, and several studies were methodologically weak (van Roy et al. 2015).

A Swedish survey showed that 20 GPs who participated in Balint groups for more than one year reported more positive feelings about their work and their relationships to their patients than did 21 GPs who had never joined a Balint group. The experience of workload was equal in both groups of GPs, but those in Balint groups had better control over their working hours and were more satisfied with their work. In addition, they felt less of a burden when encountering patients with psychosomatic symptoms and were less inclined to order unnecessary tests or to refer patients to specialists in order to terminate the consultation, in comparison with the other GPs (Kjeldmand et al. 2004). Furthermore, a larger number of GPs with Balint group experience had a patient-centred attitude than those in the reference group (Kjeldmand et al. 2006).

An interview study among nine GPs showed that Balint group participation had offered a safe, tolerant and unburdening forum for reflection on difficult professional issues, increased competence in patient encounters, developed professional identity, enhanced job enjoyment in physician-patient relationships and was preventive against burnout (Kjeldmand & Holmström 2008). Lacanian

analysis of audiotapes of Balint group case discussions suggested that Balint groups may help GPs broaden their views and relationships with patients (van Roy et al. 2014).

Based on the existing literature Mahoney et al. (2013) reported the development and application of the Balint method, especially in GP specialist training in the USA. The most frequently reported benefit of Balint group participation was improvement in self-concept as a physician, indicated by improved confidence, comfort, professional self-esteem or competence in patient encounters. Other benefits were increased ability to deal with emotional or psychosomatic patients, experiencing less of a burden, increased patient centeredness, more appropriate treatment decision scores, decreased test ordering and prescribing and improved patient satisfaction (Mahoney et al. 2013).

Small studies have been carried out to measure the benefits of Balint groups for physicians in GP specialist training. A study in the USA (n=16) showed that physicians in general practice specialist training who were frequent attendees in voluntary Balint groups scored higher than the infrequent attendees in the intuitive dimension of a personality-type test (Musham & Brock 1994). Another study in the USA among physicians in GP specialist training showed that Balint group participants (n=6) had gained more skills, abilities and confidence concerning psychological aspects of medicine than those who did not participate (n=8) (Turner & Malm 2004). A retrospective questionnaire used to compare GPs who had participated in Balint groups during specialist training for two years (n=74) versus GPs who participated for six months (n=40) revealed no differences between groups in empathy or work satisfaction scores. However, those who had participated in Balint groups for two years were more satisfied with their specialty choice than the others (Cataldo et al. 2005). A British interview and observational study among physicians in GP specialist training showed that participants in Balint groups (n=10) and in other small groups (n=3) had gained from group discussion the possibility to examine and analyse their experiences, and explore their complex and contradictory reactions to them. This experience was associated with enhanced acceptance of and ability to deal with uncertainty in clinical practice (Pinder et al. 2006).

A qualitative interview study on seven New Zealand GPs experienced with CS showed that it was used to review “difficult” patients, to back up interpersonal work in clinical practice and to learn counselling skills. Regular CS provided GPs with validation of their work, helped them to gain more self-awareness, enhanced reflection on professional identity, assisted in resolving personal and professional work-related issues, facilitated recognition of learning needs, encouraged self-

directed learning and facilitated a model of reflective learning in general practice (Wilson 2000, 1999). A focus group interview study among Australian GPs who had participated in fortnightly supervisory small groups over three years showed that they found participation empowering, confidence-increasing and useful for addressing psychological and interpersonal issues at work. They found that their psychiatric skills and confidence to use talking therapy improved. The groups were considered to be meaningful and professionally valuable and they had an important supportive function in the GPs professional lives (Wilhelm et al. 2005). A report on small groups running for three years among American primary-care physicians showed that participants found them beneficial in managing case-based clinical uncertainty (Sommers et al. 2007). A Danish observation and interview study of an established supervision group of seven GPs revealed that GPs had benefitted from supervision and many had changed the organization of their daily work as a consequence of group participation. GPs had learned to slow down and take opportunities to reflect on the situation in their consultations instead of just solving acute problems. GPs reported that previously burdening patient encounters had often become challenging instead. These changes had reduced psychological distress in the GPs (Nielsen & Tulinus 2009, Nielsen et al. 2013). A focus group interview study among 18 Danish GPs who had participated in an established supervision group for 14 years revealed that the group had provided the participants a safe environment, strengthened their ability to deal with uncertainty, boosted their self-confidence, improved their professional self-awareness, and enhanced their working enjoyment and professional motivation. The participants had fewer “heart-sink” patients and less annoyance with these patients than they did before their participation (Kjaer et al. 2015). A survey among 215 Danish GPs showed that sharing difficult issues in a CS group was relieving. GPs felt that CS had enabled them better to deal with patients with psychosomatic symptoms and mental-health problems. Their job satisfaction had increased (Nielsen & Söderström 2012).

2.4 Need for CS among GPs

Not much is known about the need for CS among GPs. Studies on this issue are sparse.

According to a Danish survey among GPs (n=215) 24 % of them reported that CS groups were not available and 85 % thought that CS should be a part of CME (Nielsen & Söderström 2012). A Finnish survey among GPs working in health centres (n=120) revealed that 20 % reported a need for CS but no chance to participate in it (Jaatinen et al. 2007).

According to a survey concerning CS among Finnish hospital physicians (n=58), 74 % had a need to discuss issues related to ethics, human relationships and emotions at work, 43% were familiar with the concept of CS and only 16 % had participated in it (Kaltiala & Sorri 1989). Of hospital physicians in eastern Finland (n=82), 23 % found CS to be an important method to develop in their work as physicians (Koivu et al. 2008).

In a large survey among Finnish physicians of all specialties (n=4137) concerning factors that help them as physicians to cope with their work, CS was mentioned several times. However, attitudes towards CS were ambiguous; on one hand the lack of CS was brought up as a problem and on the other hand the value of CS was doubted (Haukilahti et al. 2005).

An interview study from New Zealand revealed that GPs had both personal and cultural barriers as regards making use of supervision. Personal barriers included difficulty in acknowledging one's own vulnerability and not being familiar with CS. Cultural barriers were connected to medical culture in which reflection on experiences is not valued and difficulties in one's work are seen as a sign of weakness rather than as a sign of a need for proactive learning (Wilson 1999).

2.4.1 Psychological distress and burnout among GPs

According to a large US study, general practice is among the most distressing specialties in medicine (Shanafelt et al. 2012). There are similar reports from Finland (Olkinuora et al. 1990). This might imply that there is a need for CS among GPs.

Chronic exposure to work-related psychological distress can bring about burnout (Schaufeli et al. 2009). Burnout is defined by three dimensions, which are exhaustion, cynicism and inefficacy. Exhaustion is the central and most obvious symptom of burnout. It is a key aspect of burnout, referring to depletion of emotional resources. Emotional exhaustion flags the development of burnout syndrome. According to different conceptualizations of burnout, emotional exhaustion is understood as central to the experience of burnout and its primary component. Emotional exhaustion develops in reaction to job demands, including interpersonal demands, and can lead to depersonalization, lowered personal accomplishments and finally to burnout syndrome (Maslach et al. 2001, Halbesleben & Bowler 2007, Schaufeli 2007, Schaufeli et al. 2009). Cynicism is also referred to as depersonalization. It is an effort to put distance between oneself and another, leading to dehumanized perceptions of life and other humans. Inefficacy leads to reduced personal

accomplishment at work, meaning lowered feelings of competence and successful achievement. The most commonly used measure for experience of burnout at a group level is the Maslach Burnout Inventory (MBI) (Maslach & Jackson 1981, Maslach et al. 2001, Schaufeli 2007, Schaufeli et al. 2009, West et al. 2009, 2012).

A five-year longitudinal study among Dutch GPs (n=207) showed empirically that demanding patient contacts depleted GPs' emotional resources, and emotional exhaustion evoked callous and cynical attitudes towards patients, and reduced feelings of competence. Subsequently, burnout syndrome developed. It was also found that attempts to gain emotional distance from patients as way of coping evoked demanding and threatening forms of behaviour in patients (Bakker et al. 2000).

Prevalence of psychological distress and burnout among GPs and physicians in GP specialist training

Studies on psychological distress and burnout among GPs and physicians in GP specialist training have been mostly cross-sectional surveys in which the MBI has been used to measure burnout. Some of the surveys have been very large (Goehring et al. 2005, Soler et al. 2008, Arigoni et al. 2010, Galam et al. 2013) and, in general, the response rates have been high. In these surveys the prevalence of high-level emotional exhaustion has varied from 43 % to 46 %, and the prevalence of moderate or high burnout from 12 % to 44 % (Goehring et al. 2005, Lee et al. 2008, Soler et al. 2008, Twellaar et al. 2008, Arigoni et al. 2010, Orton et al. 2012, Vested et al. 2013). The only longitudinal study with a relatively long (7-year) follow-up revealed a 13 % incidence of burnout among Danish GPs (Pedersen et al. 2013). Among physicians in GP specialist training the prevalence of emotional exhaustion in studies involving use of the MBI has varied from 14 % to 16 % (Galam et al. 2013, Lebensohn et al. 2013). Studies reporting burnout among physicians in GP specialist training have been either very small or they have not used validated measures (Cooke et al. 2013). Table 3 illustrates the varying prevalence of burnout and its dimensions among GPs and physicians in GP specialist training.

Table 3. Prevalence of stress and burnout among GPs and GP specialist trainees

Study, country	Methods	Participants	Main findings				
			Stressed, %	Emotional exhaustion, %	Depersonalization, %	Lowered personal accomplishment, %	Burn-out, %
GPs							
Goehring et al. 2005, Switzerland	Cross-sectional postal survey, MBI.	n=838 GPs, age n.a., females n.a.					39
Soler et al. 2008, Europe	Multi-country, cross-sectional survey, MBI-HSS.	n=1393 GPs from 12 European countries, mean age 45.4 years, females 46%		43	35	43	12
Lee et al. 2008, Canada	Cross-sectional postal survey using MBI and Family Physician Stress Inventory.	n=123 GPs, age n.a., females 37%	42	48	46	17	
Twellaar et al. 2008, Netherlands	Cross-sectional postal survey, MBI.	n=349 GPs, mean age 45.9 years, females 48%					19
Arigoni et al. 2010, Switzerland	Cross-sectional postal surveys in 2002 and 2007. MBI.	2002: n=1443 GPs, age n.a., females n.a. 2007: n=266 GPs, age n.a., females n.a.					33 → 44
Orton et al. 2012, UK	Cross-sectional postal survey, MBI, Physicians' Interpersonal Skills Questionnaire.	n=564 GPs, age n.a., females 31%.		46	42	34	
Vested et al. 2013, Denmark	Cross-sectional postal survey, MBI-HSS, Job Satisfaction Scale (Warr, Cook and Wall).	n=376 GPs, age n.a., females n=146					24
Pedersen et al. 2013, Denmark	7-year follow-up postal survey, MBI-HSS	n=381 in 2004, n=275 in 2012, GPs were working-aged, females 39% in 2002, 45% in 2012.					13 (incidence)
Physicians in GP specialist training							
Ishak et al. 2009	Literature review 1974–2009 on burnout among physicians in specialist training.	51 studies; physicians in specialist training and medical students					27
Galam et al. 2013, France	Cross-sectional questionnaire, MBI + self-developed questionnaire.	n=4050, average age 26.4 years, females 69%		16	34	28	24
Lebensohn et al. 2013, USA	Cross-sectional online questionnaire, MBI.	n=167, median age 29 years, females 60%. First-year trainees in general practice		14	24		
Cooke et al. 2015, Australia	Cross-sectional survey, Single-item scale for burnout.	n=128, age n.a., females 67%, physicians in GP specialist training					14

MBI = Maslach Burnout Inventory, MBI-HSS = Maslach Burnout Inventory–Human Services Survey; n.a. = not available.

In Finland, a large survey among physicians (n=2671) revealed the highest burnout scores among specialists in general practice, specialists in occupational health and physicians working in health centres (Olkinuora et al. 1990). Another Finnish survey (n=3313) revealed that physicians working in health centres were more likely than other physicians to experience moderate or severe burnout and in the subgroup of specialists in general practice (n=156) 47 % had moderate or severe burnout (Töyry 2005).

Associations of psychological distress and burnout among GPs

In the literature psychological distress and burnout in general practice have been associated with walk-in clinics (Vedstedt et al. 2013), the fragmentary nature of the work (Lämsä et al. 2011), lack of professional autonomy at work (Siegrist et al. 2010), consultations concerning patients' mental-health problems (Zantinge et al. 2005), patients' expectations and uncertainty in medicine (Goehring et al. 2005), high workload (Appleton et al. 1998, Goehring et al. 2005), the need to study for specialists' training examinations, patients' unrealistic expectations, disruption of social life (Chambers et al. 1996) and lack of acknowledgement of work (Galam et al. 2013).

A qualitative study among Canadian GPs (n=10) categorized the issues causing psychological distress among GPs into personal, occupational and healthcare system issues. Personal issues included personality characteristics and the need to balance work and private life. Occupational issues consisted of challenging patients, high workload, time limitations, competency issues, documentation and practice management and changing roles within the workplace. Healthcare system issues included limited resources, rules and regulations, lack of support from other specialists, feeling of being undervalued, and financial concerns (Lee et al. 2009). Another qualitative study among Australian GPs (n=19) revealed that about two-thirds of issues causing psychological distress in GPs' work were connected to physician-patient interactions in which GPs had feelings of frustration (Winefield et al. 1994).

Patients' requests and psychological distress among GPs

Patients' expectations and requests have been commonly experienced as distressing among GPs (Cooper et al. 1989, Norman et al. 1991, Winefield et al. 1994, Chambers et al. 1996, Post 1997, Manca et al. 2007). Patients' requests for certain procedures, treatments or medication in consultations are specific forms of patients' expectations. Patients' requests and even abusive behaviour in encounters may generate negative and threatening experiences and emotions in GPs

(Weiss et al. 1996, Cohen et al. 1999, Bakker et al. 2000, Toiviainen et al. 2005, Tentler et al. 2008, Miedema et al. 2009). However, physicians' reactions to patients' requests are not straightforward. There are reports that patients' requests also generated empathy, positive emotions or not any notion on the issue (Toiviainen et al. 2005, Tentler et al. 2008).

Patients' requests in consultations have also had practical consequences. GPs have used prescribing as a mechanism to lessen their distress of the daily workload (Weiss et al. 1996). It has been suggested that perceived pressure from patients is an independent predictor of whether GPs examine, prescribe or refer (Little et al. 2004).

An American study among primary-care physicians (internists and family physicians) (n=22) showed they were frequently unaware of or denied the degree to which their thinking was biased by patient requests. After facilitated reflection the physicians were able to recognize their biases (Tentler et al. 2008). A survey in 2003 among Finnish physicians (n=2733) revealed that 12 % had experienced patients' requests and had felt that these had increased (Haukilahti et al. 2008).

Uncertainty and psychological distress among GPs

Uncertainty is an intrinsic feature of general practice work – patients may consult with a wide range of problems, they might have conditions in their early phases with vague or general symptoms, and they may consult with non-medical problems or with a mixture of somatic, psychological and social problems (McWhinney 1997). Skills to deal with uncertainty are important in general practice (O'Riordan et al. 2011). Psychological distress such as anxiety due to uncertainty has been associated negatively with GPs' self-rated diagnostic reasoning (Schneider et al. 2010). In a qualitative study among Dutch GPs (n=21) one motivational factor for laboratory testing was uncertainty (van der Weijden et al. 2002). In a Swedish interview study among GPs (n=25), strategies to cope with uncertainty included adhering to guidelines or using excessive testing (Andre et al. 2016). A Swiss survey among primary-care practitioners (n=1784) showed that uncertainty in medical care was strongly associated with burnout (Goehring et al. 2005). Amongst Australian physicians in GP specialist training (n=128) intolerance of uncertainty and anxiety generated by the uncertainty were associated with a greater risk of burnout as measured by a single question (Cooke et al. 2013).

Medical errors and psychological distress among GPs

According to a review a medical error of some significance occurs in primary care between five to 80 times per 100 000 consultations, mainly in diagnostics and treatment processes (Sandars & Esmail 2003). There are many types of medical error in primary care and systematic approaches have been developed to prevent them (Sheikh & Hurwitz 2001). While a medical error can be disastrous to the patient, it is usual that the physician who has made the mistake is also affected. The physician is wounded and in need of support (Wu 2000).

In a qualitative study among American GPs (n=30) 77 % admitted they had made a medical error. All of these physicians had adverse emotional consequences and had a strong need for support. More than half (63 %) had a need to talk to someone about the error, 59 % needed reaffirmation of their professional competence, 48 % needed validation of their decision-making and 30 % needed reassurance of their personal self-worth (Newman 1996). Medical errors are usually not a result of a lack of knowledge but of mindless application of unexamined habits and interference of unexamined emotions. Therefore, the cultivation of emotional self-awareness and self-regulation of attention might help physicians to function better in clinical situations and prevent errors (Borrell-Carrió & Epstein 2004).

Isolation at work and psychological distress among GPs

Lack of social support is associated with burnout in healthcare (Schaufeli 2007). According to a systematic literature review contacts and relationships with colleagues increased job satisfaction among GPs (van Ham et al. 2006). American primary-care physicians who participated in small groups found them valuable to have a chance to interact with colleagues. They experienced gaining renewal from shared reflection, obtaining others' perspectives, developing collegial trust and learning specific information and skills in the groups (Sommers et al. 2007).

Isolation at work, i.e. working alone, occurred as a psychosocial risk among GPs (n=585) working in public health centres (Lepäntalo et al. 2008). A Finnish national survey in 2002 (n=2419) (Kumpusalo et al. 2002) and another survey (n=1829) (Mäntyselkä et al. 2010) showed that two in three physicians working in a public health centre often felt their work was too isolated. Experiencing isolation at work and lacking opportunities to consult a colleague have been associated with lowered job satisfaction and an intention to leave the job (Lepäntalo et al. 2008, Kuusio et al. 2010, Pekkarinen et al. 2013). A qualitative study among Finnish health centre physicians (n=32) revealed that the experience of isolation was generated from making decisions

alone, not being part of the working community, lack of collaboration with others and lack of mentoring (Aira et al. 2010).

2.4.2 Emotional exhaustion among GPs

Emotional exhaustion is a chronic state with loss of emotional resources (Wright & Cropzano 1998). Emotional exhaustion is one dimension of burnout, a multifaceted response to long-term emotional and interpersonal work stress, or to an unfavourable job context, or both (Maslach et al. 2001, Schaufeli et al. 2009). Emotional exhaustion impairs job performance (Halbesleben & Bowler 2007).

Little attention has been paid to how emotional work affects physicians themselves and their ability to cope with distressing situations. The expression of emotions in medical practice by physicians is perceived as unprofessional and many physicians learn to suppress and ignore their feelings. However, neglecting emotions has adverse effects. By not engaging with their emotions in clinical work, physicians care for their patients less appropriately and effectively. It also negatively affects physicians themselves by increasing their psychological distress, anxiety and emotional exhaustion (Kerasidou & Horn 2016).

In healthcare, work stressors such as workload and time pressure explain 25–50 % of the variance of burnout, especially concerning emotional exhaustion. However, qualitative workload, i.e. experiencing distress at work, is a stronger predictor than quantitative workload as regards emotional exhaustion. Role conflict (i.e. conflicting demands at work), role ambiguity (i.e. adequate information not available to do the job well), and lack of social support, particularly lack of support from supervisors, has been associated with emotional exhaustion among healthcare professionals (Schaufeli 2007). Emotional work variables, such as requirements to display or suppress emotions or to be empathetic, account for additional variance in burnout scores over and above other stressors at work (Maslach et al. 2001). Young physicians' emotional exhaustion and burnout have been explained by an identity crisis caused by a conflict between their high expectations and the reality of the work in healthcare. A non-hardy personality, poor self-esteem, an avoiding coping style, high-level neuroticism and being a “feeling type” have been associated with burnout and emotional exhaustion in healthcare (Schaufeli 2007).

In a multi-country European study among GPs (n=1393) high-level emotional exhaustion was associated with a non-academic type of work, more years since graduation, not having further qualifications, and smoking. In a logistic regression model, two thirds of those having high-level

emotional exhaustion also had high-level burnout (Soler et al. 2008), and according to another study among GPs (n=245) lower emotional exhaustion has been associated with working part-time (Kirwan & Armstrong 1995). In all, studies exploring GPs' emotional exhaustion and its associations with work-related issues typical in general practice, such as a need to tolerate uncertainty, and working alone, are sparse.

2.5 Emotional aspects of GPs' work

2.5.1 Emotions in GPs' work

Working as a physician is emotionally challenging. The emotionally charged situations in clinical work often culminate in difficult interactions with patients, relatives and other medical professionals (Wallace et al. 2009). Patient contacts are emotionally charged, since physicians deal with troubled people in need (Schaufeli 2007). Physicians often have to encounter other persons' most secretive areas, both physically and emotionally. Behind a patient's decision to consult a physician is usually a fear of something being wrong. This fear is placed on the physician (Arnetz 2001). Emotional talk in a medical consultation has both psychological and physiological effects on both the patient and the physician (Finset 2012).

Emotions in medicine can be a rich source of job satisfaction for physicians, but they also have the potential to be psychosocial job stressors that need to be dealt with. Patients are known to evoke not only positive emotions but emotions of anger, frustration, avoidance, fear and despair among physicians. This can be distressing for physicians and they need to develop strategies to successfully deal with such situations (Arnetz 2001). It is also known that negative emotions in clinical work reduce a physician's capacity for empathy. To preserve effective empathy in care, physicians need to be in positive frame of mind and not affected by stress and burnout (Zenasni et al. 2012). Dealing efficiently with emotions is a challenge in healthcare (Schaufeli 2007).

A Dutch qualitative study among GPs (n=57) showed that both positive and negative feelings at work were present at the same time. These feelings did not occur in the same dimension and were not complementary. Positive feelings at work were associated with GPs being more open to their patients, paying more attention to patients' wishes, thoughts and feelings, and higher referral rates to specialists. Negative work-related feelings were associated with higher prescription rates, and giving less information to patients (Grol et al. 1985).

A Spanish study among GPs (n=75) showed that encounters with frequently attending patients evoked strong emotions in GPs such as feelings of impotence, not knowing what to do, anxiety/nervousness, discouragement/sadness, and rage/anger. These emotions were associated with unnecessary laboratory testing or referrals to specialists. Positive emotions were more common among younger GPs and were associated with the GPs' experience that their patients really needed to see a physician (Bellón & Fernandez-Asensio 2002).

Among GPs, negative emotions, such as frustration, helplessness or experiencing the patient being "difficult" or "heart-sinking" have been associated with problematic physician–patient relationships, patients' psychiatric and dependency conditions, chronic loneliness and frequent use of healthcare (Hahn et al. 1996, van der Zwet et al. 2009, Moscrop 2013).

Physicians can also use emotions as tools in clinical work (Balint 1986). Emotions presented by patients or the complementary emotions that patients provoke in physicians can be diagnostic clues to some conditions, such as depression, for example, or more generally to the emotional state of a patient. Recognition of and dealing skilfully with one's own or a patient's emotions can enrich the therapeutic power of the GP in a clinical encounter. Cultivation of self-awareness and support are important for physicians in utilizing emotions in clinical work (Balint 1986, Zinn 1988, Novack et al. 1997).

Grol et al. (1985) have pointed out that GPs should discuss regularly how they are doing at work and how they cope with negative emotions that arise from work and that these discussions should become an integral part of GPs' specialist training and clinical practice.

2.5.2 Wellbeing at work among GPs

Wellbeing is important for physicians both as persons and as professionals. Physicians' wellbeing is also important for patients and for the healthcare system. Unwell physicians deliver poorer quality of care than physicians feeling well and they are at risk of leaving the profession. Physicians' wellbeing at work and their job satisfaction are related to each other (Wallace et al. 2009).

Scores for job satisfaction among GPs have generally been relatively high. In a British survey among GPs (n=1817) their overall job satisfaction score was 5.23 (scale 1 to 7) (Cooper et al. 1989), while Australian GPs (n=860) scored 50 out of 70 for mean work satisfaction (Walker & Pirota 2007) and among German GPs (n=672) the mean score for job satisfaction was 5.52 (scale 1

to 7) (Goetz et al. 2011). Amongst UK physicians in GP specialist training the mean score for job satisfaction was 4.82 (scale 1 to 7) (Chambers et al. 1996). In Finland 80 % of physicians working as GPs in health centres were very or quite satisfied with their jobs (Kumpusalo et al. 2002).

According to a literature review, factors that increase job satisfaction mentioned most often by GPs are diversity of the work, relations and contacts with colleagues and being involved in teaching medical students (van Ham et al. 2006). In an Australian GP survey (n=860) the most frequent themes regarding job satisfaction were variety of the work, longitudinal patient relationships, belief in the value of one's work and intellectual stimulation (Walker & Pirotta 2007). A qualitative study among GPs (n=19) in the UK showed that interpersonal relationships with patients were an important source of their work satisfaction (Fairhurst & May 2006). In a web-based qualitative study among American GPs (n=28) key rewards of the work were connected to the diversity of the work, comprehensive care, physician–patient relationships, and being “an immersed witness to the human condition” (Manca et al. 2007).

In a qualitative study among Finnish GPs (n=9) the experience of being able to help patients was an important contributor to endurance at work (Kyösti & Larivaara 2004). A recent interview study among Finnish specialists in general practice (n=30) revealed that job satisfaction was associated most often with variety of the work, patient encounters, long-term relationships with patients, good working community, and having good-quality free time (Koskela et al. 2016). However, high-level job satisfaction does not rule out distress. Among New Zealand GPs (n=391) high levels of job satisfaction and high levels of psychological symptoms were found concurrently (Dowell et al. 2000).

2.6 Summary of the literature

Clinical supervision in medicine is derived from other helping professions. The concept of CS in medicine is not unified. Based on the literature, CS in medicine has been defined as activities that provide monitoring, guidance and feedback on matters of personal, professional and educational development in the context of a physician's care of patients. A useful approach to CS is through its three commonly accepted functions: normative/administrative, formative/educational and restorative/supportive functions. The aims of clinical supervision are intertwined with its functions.

Medical CS among physicians is aimed at ensuring work quality, enhancing professional development and fostering wellbeing at work. CS is not a form of psychotherapy.

Clinical supervision has not been widely studied in basic medical education. It has been argued that medical education should provide better support for medical students' personal and professional development. Balint groups for medical students have been used for this purpose in several countries since the 1960s. Balint groups are professionally led regular meetings of stable groups over a relatively long period of time in which participants' patient cases are discussed and work issues are reflected upon. The cases are narrated in the group freely without notes, the aims being not to solve medical problems but to increase understanding of the patient as a person and enhance a physician's self-awareness in physician–patient relationships. Medical student Balint groups have differed from traditional Balint groups. The cases discussed in these groups have also been issues other than patient cases. Appropriate studies on student Balint groups are sparse.

Among GPs, use of the Balint group method has been the most widely reported method of CS. The literature on CS among GPs consists largely of descriptive reports on activity. Studies on this topic have mainly involved qualitative methods or are small-scale descriptive studies. There is some evidence that GPs have experienced CS as beneficial. CS may increase their job satisfaction, provide support and prevent burnout. Not much is known about GPs' needs for CS or its associated factors. However, the high prevalence of psychological distress and burnout among GPs might imply a need for CS.

A physician's work is emotionally challenging. It may lead to emotional exhaustion, which is a chronic state with loss of emotional resources. Emotional exhaustion is a central experience and the primary component of burnout syndrome. Emotional exhaustion impairs job performance. Emotions can be reflected in CS. Not much is known about emotional exhaustion among GPs and its associated factors.

3. Aims of the study

This study was aimed at exploring CS among GPs and medical students, i.e. attitudes towards, experience of and needs for CS as well as associated factors. Furthermore, the contents of discussions in student Balint groups were investigated qualitatively.

Specific aims were:

1. To explore the contexts from which cases emerge, which issues trigger case narrations and what are the themes of discussions in student Balint groups (Study I).
2. To study GPs' experiences of and needs for CS and to explore how GPs' characteristics and certain work experiences are associated with a need for CS (Studies II & IV).
3. To study the prevalence of emotional exhaustion among GPs and how their characteristics and certain work experiences are associated with emotional exhaustion (Study III).

4. Methods

Mixed methods were used in this investigation, which involved three lots of study material. The mixed methods design may be considered sequential exploratory, in which initial qualitative data collection and analysis were followed by a phase of quantitative data collection and analysis. This approach was used to explore the phenomena around clinical supervision thoroughly. The first lot of material consisted of field notes from voluntary student Balint groups arranged for 3rd year medical students in 2002–3 meeting every second week on ten occasions and in 2004 meeting weekly on five occasions. The material was analysed using grounded theory-based thematic content analysis to study what triggers case narration, the context from which cases arise and the contents of the group discussions (Study I). The second lot of material was an annual survey by the Finnish Medical Association of all physicians of working age in 2008. Among specialists in general practice the use of and need for CS and associated factors were analysed (Study II). The third lot of material consisted of cross-sectional questionnaire data among physicians working in health centres. The use of and need for CS and the prevalence of emotional exhaustion were studied. Associations between certain work and professional issues and physicians' characteristics were analysed (Studies III & IV).

4.1 Participants

Study I

Two separate student Balint groups were arranged at the Faculty of Medicine, University of Helsinki, between 2002 and 2004 in collaboration with the Finnish Balint Society. Participants for the groups were recruited by advertising by email. The groups were open to all medical students who had completed at least three years of the six-year-long medical school curriculum. Sixteen medical students were interested in participation and finally nine did. Five participated in the first and four in the second Balint group. The age range of the participants was 23–30 years, mean age 26 years, and all were female. Before the groups started meeting, they were informed about the Balint method and the purpose of the sessions and signed an informed consent document to participate in the study. Each group session was led by a GP who was also a trained psychoanalyst and an experienced Balint group leader and co-led by a specialist in general practice who was also a clinical teacher at the University of Helsinki.

Study II

In 2008, an annual survey with routine questions was mailed by the Finnish Medical Association to all 18 603 physicians who had been licensed in Finland that year or before and who were not yet retired. In addition to the regular questions, the survey included special questions concerning CS, continuing medical education (CME) and patients' requests. The response rate to the survey was 74 % (n=13 708). Of the responders, 10 559 answered the special questions. Of these physicians, 1252 were specialists in general practice. Among them the age range was 30–63 years and 715 (57 %) were females.

Studies III & IV

The study population was gathered as a convenience sample using contact-physicians in health centres in Southern Finland, from whom the email addresses of all the physicians working in their health centres were obtained. More than 30 health centres were contacted. The use of a convenience sample was chosen to ensure the best possible response rate, knowing that young physicians in particular change their jobs quickly and their email addresses may be out-dated and the physicians unreachable. Furthermore, GPs' response rates to questionnaire surveys using randomly sent invitations can be low (Creavin et al. 2011). In 2011 an email invitation (and one reminder email) to participate anonymously in a web-based survey was sent to 244 email addresses. Of the recipients, 165 physicians (68 %) participated in the study; the age range was 26–56 years and 124 (75 %) were female (Table 4).

Table 4. Summary of participants' background characteristics, the settings and the types of analysis methods used in the studies.

Participants	3rd to 6th year medical students	Finnish working-aged specialists in general practice who responded to the annual Finnish Medical Association survey	Physicians working as GPs in health centres	Physicians working as GPs in health centres
Number of participants	9	1252	165	165
Mean age, years, (range)	26 (23–30)	51 (30–63)	40 (25–64)	40 (25–64)
Females, n (%)	9 (100)	715 (57)	124 (75)	124 (75)
Context of the study	Optional student Balint groups in 2002-04 at the University of Helsinki	Annual survey by the Finnish Medical Association for all working-aged physicians, 2008	Contact health centres in Southern Finland in 2011	Contact health centres in Southern Finland in 2011
Type of study	Qualitative	Quantitative, large survey	Quantitative, convenience sample, electronic survey	Quantitative, convenience sample, electronic survey
Material	Field notes from 15 Balint group sessions	Data from a cross-sectional survey	Data from a cross-sectional electronic survey	Data from a cross-sectional electronic survey
Article number, title, year of publication	I A qualitative analysis of student Balint groups in medical education: Contexts and triggers of case presentations and discussion themes, 2008	II Clinical supervision among family physicians: prevalence, needs and attitudes, 2013	III Emotionally exhausting factors in general practitioners' work, 2015	IV Family physician experiences with and needs for clinical supervision: Associations between work experiences, professional issues and social support at work, 2016

4.2 Materials

4.2.1 Study I

The Balint-group leader and co-leader collected the data as field notes from the student Balint-group sessions. The cases presented and notes of the discussions were written during and immediately afterwards. The individual notes were then compared and discussed between the group leaders after each session, possible discrepancies were clarified and a consensus of content was agreed upon. The field notes were transcribed.

4.2.2 Study II

The Finnish Medical Association delivered a survey in 2008 to all working-aged physicians who had been licensed in Finland that year or before and who were not retired. The Finnish Medical Association has annually performed a survey among all working-aged physicians in Finland since 1982. In the questionnaire, 60 % of the items are routine questions that produce demographics and structural knowledge concerning the physicians. Additionally, each year, the remaining 40 % of the questions are special questions with a selected focus. In 2008 the special questions focused on CS, CME and physicians' experiences of patients with specific requests in connection with issues such as certain diagnostic tests, procedures or medicines. In the questionnaire, CS was not defined but there was a reference to Balint groups. The special questions in the 2008 survey with their answer options and categorizations of the responses are shown in Table 5.

Table 5. Special questions in the Finnish Medical Association 2008 survey and their response options.

Question	Response options and categorization of the responses in the analyses
Do you attend or have you attended clinical supervision (e.g. Balint groups or other)?	1) I currently attend 2) I have attended, but am not attending now 3) I wish to attend, but CS is unavailable 4) I do not need CS 1 and 2 = GPs experienced with CS 3 = GPs with a need for CS (with no accessibility to it) 4 = GPs with no need for CS
Did you participate in CME arranged outside your workplace in 2007?	Yes / No
Do you have patients who request certain medicines?	1) Very often 2) Often 3) Seldom 4) Very seldom 1 and 2 = often 3 and 4 = seldom
Do you have patients who request certain laboratory or other diagnostic tests?	
Has the number of patients who request certain laboratory or other diagnostic tests increased in recent years?	1) Clearly 2) Somewhat 3) No 4) I don't know 1 and 2 = yes
Has the number of patients who request certain medicines increased during past years?	
Do patients' requests complicate the physician-patient relationship?	1) Fully agree 2) Somewhat agree 3) Do not know 4) Somewhat disagree 5) Fully disagree 1 and 2 = yes

4.2.3 Studies III & IV

The questionnaire used in Studies III and IV was based on prior research on physicians (West et al. 2006, Töyry 2005), items from a survey for 5th year medical students (Nevalainen et al. 2012) and on the Maslach Burnout Inventory (MBI) (Maslach & Jackson 1981). The MBI is a validated and

most commonly used measure of burnout and it includes three subscales (emotional exhaustion, depersonalisation, personal accomplishment) (Schaufeli et al. 2009, West et al. 2009). It is known that the length of the MBI limits its utility in surveys among physicians. Two questions from the MBI, i.e. “I feel burnt out from my job”, and “I have become more callous toward people since I took the job”, have shown a strong association with burnout among medical professionals (West et al. 2009, 2012). Also a single question concerning self-defined burnout has correlated with the MBI measure of emotional exhaustion (Hansen & Girgis 2010). Table 6 shows the questions asked and the response options in Studies III and IV. In Study III the item “I feel burned out in my job” was used as a surrogate for emotional exhaustion (West et al. 2009, West et al. 2012).

Table 6: Questions about GPs’ work experiences with answer options and categorization of the responses. *=Item from the Maschach Burnout Index

Question	Response options and categorization of the responses in the analyses
I feel burned out in my job*	1) Never 2) Seldom 3) Sometimes 4) Quite often 5) Often 4 and 5 = yes
I feel frustrated by my job*	
I feel I have to work too hard at my job*	
I feel my job is emotionally draining*	
I’ve become more callous towards people since I took this job*	
I feel uncertainty about my own professional knowledge	
I feel uncertainty about my own professional skills	1) Poorly 2) Quite well 3) Well 1 = not well
I tolerate uncertainty when making medical decisions	
I am afraid of committing a medical error	Yes/ No
I have committed a medical error in the past three months	
I feel I can positively influence my patients’ lives through my work*	1) Never 2) Seldom 3) Sometimes 4) Quite often 5) Often 4 and 5 = yes
I can use my professional skills comprehensively at work*	
I feel that working with patients is rewarding	
I feel my patients trust me*	
I feel alone at work	
I can consult a colleague at work	1) Often enough 2) Too seldom or not at all 3) I do not need to consult with anyone 2 = no

Furthermore, the questionnaire inquired about demographic variables such as age, years of experience as a physician, status of specialist training (young physician / not specialized physician / specialist in general practice / specialist of some other specialty) and the contents of current work (clinical work / administration / teaching or tutoring / research / other). Satisfaction with work and

life were inquired about by using a visual analogue scale of 0 to 10 (0 = very unsatisfied and 10 = very satisfied). Table 6 gives all the items and their alternatives used in the questionnaire.

4.2.4 Analyses

Qualitative analysis

In Study I a grounded theory-based approach thematic content analysis (Glaser & Strauss 1967) was used. First the field notes were individually read by three of the researchers several times and issues from the data were coded as they emerged. The individual codes were then compared in data-analytic sessions, inconsistencies between the individual codes were resolved through shared reflection and discussion, and a consensus of the findings was negotiated following the principles of thematic coding (Gibbs 2007, Pope & Mays 2000). The coded issues were grouped into main categories in data-analytic sessions by the larger study group. Next, the contents of each category were analysed and organized into themes. To determine the frequencies of the themes in the main categories tabulations were used (Silverman 2004). Attention was also paid to deviating phenomena.

Statistical methods and analyses

In Studies II, III & IV the data were analysed using SPSS 17.0 (SPSS Inc., Chicago, IL) and SPSS™ version 20 (IBM Corp., Armonk, NY, USA) statistical programs. The variables were presented as means with standard deviations (SDs), ranges, or as frequencies with percentages. In the analyses cross-tabulation was used, and the statistical significance of differences in categorical variables between groups was tested by using Pearson's chi-square test, or Fisher's exact test, as appropriate. The Mann–Whitney test was used to test non-normally distributed continuous variables. Values of p less than 0.05 were considered significant. Logistic regression analysis was used to explore the factors that predicted emotional exhaustion among the GPs.

4.3. Ethical aspects

Study I was of an educational research nature and therefore it was not mandatory to apply for permission from the ethics committee for it. However, all the participants were informed and gave written consent to take part in the study. Studies II, III & IV were surveys that were based on voluntary and anonymous participation. Therefore, no ethics committee approval was deemed necessary.

5. Results

5.1. Characteristics of the participants

The study population consisted of samples of medical students (N=9) (sample 1), all working-aged specialists in general practice in Finland who responded to the annual survey of the Finnish Medical Association in 2008 (N=1252) (sample 2), and physicians working as GPs in contact health centres in southern Finland (N=165) (sample 3).

All were female in sample 1, and, respectively, three in five in sample 2 and nearly four in five in sample 3. The mean age of members of sample 1 was 26 years; it was 51 years in sample 2 and 40 years in sample 3. Sample 1 consisted of medical students in their clinical study years (3rd to 6th); sample 2 consisted of specialists in general practice. Of sample 3, 23 % were recently graduated young physicians, 36 % were physicians in GP specialist training, and 30 % were specialists in general practice. Some of the medical students in sample 1 had worked as locum physicians for short periods during medical-school summer holidays. Of sample 2, all had working experience longer than five years, as specialist training in Finland takes six years after graduation from medical school. Of sample 3, half had worked as physicians for five years or more. Of sample 2, two in three were working in health centres. Of sample 3, all were working in health centres. Table 7 summarizes the characteristics of the samples.

Table 7. Characteristics of participants in the study population.

Study populations	3rd to 6th year medical students (Study I) N=9	Working-aged specialists in general practice (Study II) N=1252	GPs working in health centres (Studies III & IV) N=165
Gender, females, n (%)	9 (100)	712 (57)	124 (75)
Mean age, years (SD)	26.0 (2.2)	51.0 (7.1)	39.5 (10.7)
Native language, n (%)	N.A.		
Finnish		1186 (95)	137 (83)
Swedish		48 (4)	15 (9)
Other		18 (1)	13 (8)
Experience as a physician			
5 years or less	9 (100)	0	85 (52)
>5 years	0	1252 (100)	80 (48)
Specialty status, n (%)	N.A.		
Recently graduated young physician		0	38 (23)
In GP specialist training		0	59 (36)
Specialist in GP		1252 (100)	49 (30)
Not a specialized physician / other		0	19 (12)
Work sector, n (%)	N.A.		
Health centre		797 (64)	165 (100)
Private GP		129 (10)	0
Occupational health		94 (8)	0
Hospital		95 (8)	0
Other work		123 (10)	0
Not working		14 (1)	0
Nature of current work, n (%)	N.A.	N.A.	
Clinical work			160 (97)
Administration			22 (13)
Teaching / tutoring			35 (21)
Research			3 (2)
Other (=education coordinator)			7 (4)

5.2. Main findings

5.2.1 Student Balint groups (Study I)

In Study I nine female 3rd to 6th year medical students participated, four in the first group and five in the second group. Altogether, 15 group sessions were held and 28 cases were presented and discussed. Each participant presented at least one case. All participants were active in the discussions. Analysis of the field notes of the group discussions suggested that the cases emerged from three types of *context*: *patient encounters* (17 cases), *confusing experiences in medical education* (5 cases) and considerations of the impact of being a physician on one's private life (*privacy and profession*) (6 cases) (Figure 2).

Certain *triggers* for case narration emerged: a seriously ill or dying patient (*incurable patient*) (7 cases), situations in which patients or professionals had behaved rudely or humiliatingly towards each other (*difficult human relationships*) (7 cases), having witnessed injustice (*witnessing injustice*) (5 cases), experiencing one's own values being in conflict with what happened in the situation (*value conflict*) (4 cases) and loss of clarity concerning one's role (*role confusion*) (4 cases). One of the cases was triggered by none of the named triggers (deviating case). This case was triggered by the death of a student's close associate (Figure 2).

The *themes* in the discussions could be organized into four categories and each theme was discussed in association with several cases: *feelings related to patients* (20 cases), *building professional identity* (26 cases), *negative role models* (16 cases) and *co-operation with other medical professionals* (15 cases) (Figure 2). An example of a case associated each with theme is shown in Table 8.

Table 8. Themes in student Balint group discussions and a case example for each theme.

Theme	Example of a case
Feelings related to patients	<i>A middle-aged man with longstanding and difficult illness is totally dependent on the help of others. He is cared for in the ward where the student is working as a locum physician. The patient is very demanding, asks repeatedly for special help, and behaves verbally rudely towards all those who try to help him. The student is ordered to take care of discharge of the patient from the ward. The student had noticed that the nurses were tired or even angry with the patient and avoided him as much as possible. The student has uneasy feelings concerning the patient, the task of discharging him from the ward and the nurses' behaviour towards him.</i>
Building professional identity	<i>A patient is in a special clinic with diffuse and unspecific symptoms and no diagnosis could be made. The patient is disappointed, not at ease, and clings to the student who is working in the clinic as an assistant physician. The student feels sorry for the patient, but is puzzled about her role as a professional with patients who are sad, with psychosomatic symptoms, lonely and suffering – is it a role of a consultant or a fellow human being, and how should these be combined.</i>
Negative role models	<i>The student is on an educational visit with a teaching psychiatrist and another student in a psychiatric hospital and has an encounter with a patient who has had serious drug and psychiatric problems and has been in prison several times. Currently the patient uses no drugs, is living in a supported home and struggling for a better life. In the encounter the teaching psychiatrist behaves in a detached way, shows no respect toward the patient and asks confusing questions. The student is puzzled by this behaviour and feels it is not professional.</i>
Co-operation with other medical professionals	<i>The student is on an obstetrics course where they have to follow a certain number of deliveries. There is a family delivery and the student is left alone with the couple. In this situation the future mother and father start to argue and both try to involve the student in the fight. The student is puzzled about what to do; she is not allowed to leave the room; she calls for the midwife on shift but she refuses to come to help in the situation. The student feels puzzled about the midwife's behaviour.</i>

Figure 2. Cases, context of cases, triggers for narration of cases, and themes of discussion in student Balint groups (Study I).

Number of and short description of case	Context of the cases	Trigger for case narration	Discussion themes			
			Building professional identity	Feelings related to patients	Co-operation with other medical professionals	Negative role models
1. Raging patient	Patient encounter	Witnessing injustice	X	X	X	
2. Mentally retarded, sexually abused patient				X	X	
16. Dishonest patient			X	X	X	X
19. Patient complaint			X	X		X
5. Dying patient in emergency department (ED)		Incurable patient	X	X	X	X
6. Demented patient in ED			X	X		X
8. Tetraplegic patient			X	X	X	X
11. Anorectic patient			X	X	X	X
14. "Bad death"			X	X	X	
15. "Good death"			X	X		X
27. Pain for ten years			X	X	X	X
3. Complicated childbirth		Difficult human relationships	X	X	X	
12. Patient with severe pain in ED			X	X	X	
17. A disturbed consultation		Value conflict		X	X	X
4. Frequently visiting patient			X	X	X	X
13. Patient with dizziness			X	X	X	
18. Confrontation with a demanding relative of patient			X	X	X	
9. Being a medical student at the university hospital	Confusing experience in medical education	Witnessing injustice	X			X
20. Demands of perfect performance in healthcare		Value conflict	X		X	X
25. Rude treatment of patient in intensive care unit		Difficult human relationships	X	X	X	X
26. Male patient in dialysis	Privacy and profession	Role confusion	X			X
28. Psychiatric wards						
7. Student's lost friend			X			
20. Student's severely ill friend		Difficult human relationships	X			
22. Accident of a young downhill skier			X	X		
23. Requests to give medical advice during holidays			X			
21. Encountering of a victim of irrational violence			X			
24. Death of a close person	(deviating case)	Very personal (deviating case)	X		X	

5.2.2 Experience of and need for CS among GPs (Studies II & IV)

In Studies II and IV 35–42 % of GPs had current or previous experience of CS (see Table 9 for summary of GPs' experiences of and needs for CS).

In Study II specialists in general practice had previous or current experience of CS more often than other physicians in Finland (42 % vs. 29 %). In addition, the proportion of those with no need for CS was lower among specialists in general practice than among other physicians (33 % vs. 41 %). When psychiatrists were excluded from the other physicians' groups, the difference between GPs and other physicians was even larger. Of other specialists, 26 % had current or previous experience of CS whereas 43 % had no need for it (unpublished data).

Table 9. Proportions of GPs experienced with CS, having a need for CS and not needing CS in the two study populations (Studies II and IV).

	Specialists in general practice N=1252 (sample 2) (Study II)	GPs working in health centres N=165 (sample 3) (Study IV)
Had previous or current experience of CS, %	42	35
Had a need for CS, %	25	36
Did not need CS, %	33	29

5.2.3 Associates of experience of and need for CS among GPs (Studies II & IV)

Study II

Study II showed that a larger proportion of females than males had experience of or need for CS. Study II also showed that the age of those with experience of CS and of those with a need for CS was higher than among those not needing CS. Active participation in CME was very common, since more than 90 % had participated in it. However, the proportion of active CME participants was smaller among those who did not need CS than among those experienced with or having a need for CS (Table 10).

Study II also revealed that 65 % of the participants had often had patients who requested certain diagnostic tests, and 40 % had had patients who requested certain medicines. Of the participants, 72 % and 62 %, respectively, thought that these requests had increased in recent years. Altogether, 42

% thought that patients' requests complicate the physician–patient relationship. The proportion of those who considered that the number of patients that requested certain tests had increased was smaller among those who had no need for CS than among those who were experienced with or had a need for CS ($p=0.0034$). The same was true as regards patients with requests for certain medicines ($p=0.0083$) (Table 10).

Table 10. Issues associated with having experience of, need for and no need for CS among specialists in general practice (N=1252) (Study II).

	Had previous or current experience of CS (N= 523)	Had a need for CS (N= 316)	Did not need CS (N= 413)	p ¹
Age <50 years, %	41	53	32	<0.001
Females, %	66	69	37	<0.001
Worked in primary health care, %	69	79	68	0.0035
Had participated in CME, %	94	93	88	0.0070
Often had patients requesting certain laboratory/diagnostic tests, %	66	69	61	0.067
Often had patients requesting certain medicines, %	44	42	34	0.017
Thought that the number of patients requesting certain laboratory/diagnostic tests had increased, %	73	78	66	0.0034
Thought that the number of patients requesting certain medicines had increased, %	63	68	56	0.0083
Thought that patients' requests complicate the physician–patient relationship, %	39	47	43	0.067

¹ X² test for difference between groups

CME = Continuous medical education

Study IV

Study IV showed that those experienced with CS were older than those who had a need for or did not need CS. Those experienced with CS, needing CS and not needing CS did not differ as regards gender, marital status, years of work experience, specialist status, or mean satisfaction with life or work (Table 11).

Larger proportions of those who were experienced with CS (17 %) or with a need for CS (15 %) versus those not needing CS (2 %), felt that their job was emotionally draining. There was a statistical trend that a larger proportion of those who had a need for CS (22 %) than of those experienced with (9 %) or not needing CS (11 %) felt themselves to have become callous.

Concerning being frustrated by the job, having to work too hard, and feeling burned out from work, the three groups did not show significant differences (Table 11).

Of the participants, 60 % were afraid of committing a medical error and 24 % could seldom or never consult a colleague at work. Furthermore, 19 % and 18 % had had an experience of feeling uncertain about their own professional knowledge or skills, respectively. Four per cent of the participants had poor tolerance of uncertainty in medical decision-making and 40 % stated that they had committed a medical error in the recent past. None of these experiences were associated with experience of, need for or not needing CS. There was a statistical trend indicating that the proportion of those who felt alone at work was lower among those who did not need CS (19 %) than among those experienced with (31 %) or needing it (39 %) (Table 11).

11. Issues associated with having experience of, need for and not needing CS among GPs working in health centres (N=165) (Study IV).

	Have previous or current experience of CS (N = 58)	Have a need for CS (N = 59)	Do not need CS (N = 48)	p-value*
Females, %	79	79	65	0.14
Mean age, years (SD)	42.8 (11.8)	37.0 (9.2)	38.7 (10.2)	0.029
Married or cohabiting, %	93	86	90	0.32
Mean satisfaction with life on a scale of 0–10 (SD)	8.2 (1.9)	8.4 (1.7)	8.4 (1.3)	0.92
Mean satisfaction with work on a scale of 0-10 (SD)	7.9 (1.4)	7.4 (1.8)	7.6 (1.4)	0.28
Work experience < 5 years, %	41	56	58	0.15
Specialist in general practice, %	41	24	23	0.053
Felt frustrated by job, %	2	9	8	0.23
Felt having had to work too hard at job, %	33	32	29	0.92
Felt job was emotionally draining, %	17	15	2	0.039
Felt burned out from work, %	16	20	19	0.79
Thought they had become more callous towards people since taking the job, %	9	22	11	0.074
Felt uncertain about their professional knowledge, %	21	25	10	0.14
Felt uncertain about their professional skills, %	17	24	13	0.32
When making medical decisions tolerated uncertainty poorly, %	7	2	2	0.26
Were afraid of committing a medical error, %	54	66	60	0.34
Had committed a medical error in the past three months, %	31	49	40	0.17
Felt alone at work, %	31	39	19	0.076
Could too seldom or not at all consult a colleague at work, %	19	34	19	0.10
Felt able to influence patients' lives positively through work, %	78	71	77	0.68
Felt patients trusted her/him, %	90	86	92	0.68
Felt able to use professional skills comprehensively at work, %	81	80	79	0.98
Felt working with patients was rewarding, %	91	81	79	0.17

*Chi-square test or Fischer's exact test to compare categorical variables

Study IV revealed that rewarding work experiences were common among GPs; 75 % felt that they were able to influence patients' lives positively through work, 89 % considered that patients trusted them, 80 % felt able to use their professional skills comprehensively at work and 84 % considered that patient work is rewarding. Rewarding work experiences were not associated with having experience of, needing or not needing CS (Table 11).

5.2.4 Emotional exhaustion and its associates and predictors among GPs (Study III)

Study III revealed that almost 18 % of physicians in primary health care felt often or very often burned out from their job, and, thus, they were considered as being emotionally exhausted by their work. The mean age of emotionally exhausted GPs (43 years) was higher than that of those not emotionally exhausted (39 years). Those who had work experience of more than five years were more often emotionally exhausted than those not emotionally exhausted. Gender, marital status or being specialists in general practice were not associated with emotional exhaustion (Table 12).

The proportion of those who felt frustrated by their job, who felt that they had to work too hard, or felt emotionally drained from work was higher among those feeling emotionally exhausted than among those who were not. Of emotionally exhausted GPs, 24 % felt they had become callous, whereas the respective figure among those not emotionally exhausted was 12 % ($p=0.087$) (Table 12).

Concerning challenging work experiences, a larger proportion of those emotionally exhausted (10%) tolerated uncertainty more poorly than of those not emotionally exhausted (2 %) ($p=0.040$). In addition, they were more often afraid of committing a medical error, had committed a medical error in the recent past and felt alone at work in comparison with those not feeling emotionally exhausted. There was no difference between the two groups of GPs in feeling uncertainty about their professional skills (Table 12).

Those emotionally exhausted and those not emotionally exhausted were similar as regards how they felt about being able to influence patients' lives positively through work or being able to use their own professional skills comprehensively at. Neither was there any difference between the groups in how they had participated in CS nor in if they had a need or no need for it. There was a statistical trend that a smaller proportion of emotionally exhausted GPs than of those not emotionally exhausted felt that their patients trusted them (Table 12).

Table 12. Issues associated with emotional exhaustion among GPs working in health centres (Study III).

	Emotionally exhausted GPs (n = 30)	Not emotionally exhausted GPs (n = 135)	p-value*
Females, %	73	75	0.82
Mean age, years (SD)	43.3 (11.9)	38.5 (10.1)	0.029
Married or cohabiting, %	83	82	0.95
Work experience > 5 years, %	67	44	0.028
Specialist in general practice, %	37	28	0.36
Felt frustrated by job, %	17	4	0.0071
Felt having to work too hard at one's job, %	80	21	<0.001
Felt job was emotionally draining, %	33	7	<0.001
Felt having become more callous towards people since taking this job, %	24	12	0.087
Felt uncertain about own professional skills, %	27	16	0.18
When making medical decisions tolerated uncertainty poorly, %	10	2	0.040
Was afraid of committing a medical error, %	83	54	0.0033
Had committed a medical error in the past 3 months, %	59	38	0.042
Felt alone at work, %	50	26	0.0095
Felt able to influence patients' lives positively through work, %	63	78	0.10
Felt patients trust her/him, %	80	91	0.077
Felt able to use professional skills comprehensively at work, %	70	83	0.11
Clinical supervision, %			0.77
Had participated or was currently participating in CS	31	38	
Had not participated but felt a need for CS	41	37	
Had no need for CS	28	25	

*Chi-square test or Fisher's exact test to compare categorical variables; Mann-Whitney *U*-test to compare non-normally distributed continuous variables

Logistic regression analysis showed that working experience longer than five years (OR 4.1, 95 % CI 1.6–10.8; $p=0.004$) and feeling alone at work (OR 2.9, 95 % CI 1.2–7.1; $p=0.020$) predicted emotional exhaustion. Tolerating uncertainty well protected physicians from emotional exhaustion (OR 0.1, 95 % CI 0.09–0.7; $p=0.010$) (Table 13).

Table 13. Logistic regression analysis of predictors of emotional exhaustion (Study III).

Variable	OR	95 % CI	p-value
Gender	1.0	0.3–2.8	0.99
Working experience over 5 years	4.1	1.6–10.8	0.004
When making medical decisions tolerated uncertainty well	0.1	0.1–0.7	0.010
Had committed a medical error in the past 3 months	2.4	1.0–5.9	0.057
Felt alone at work	2.9	1.2–7.1	0.020

6. Discussion

6.1 Main findings

In this study we explored CS among medical students and GPs in various work positions and phases of their work career. Balint groups offered medical students opportunities to reflect on their professional identity as future physicians and served as a forum to elaborate emotions evoked by patients. They also served as a forum for their professional growth. Most cases in Balint group discussions arose from patient encounters, but there was also a need to accept issues arising from experiences as medical students, and how being a physician influences one's life. The triggering issues for case narrations were most often connected to medical students' encounters with seriously ill or dying patients, or having been in situations where patients or professionals had behaved rudely towards each other. In addition, having witnessed injustice, or having experienced one's own values being in conflict in educational situations, or not being sure of one's own role triggered case narrations. The themes in the discussions directly concerned students' future identity as medical physicians in nearly all cases, and in many cases there was also reflection on experiences with negative role models and co-operation with other medical professionals. In addition, feelings related to patients were a very common theme. It seemed that student Balint groups were used as a forum in which issues relevant for the students were reflected upon, and these groups may foster medical students' professional development.

GPs were relatively well experienced with CS. In the large Finnish Medical Association survey and in the convenience sample 42 % and 35 %, respectively, had either previous or current experience of CS. Furthermore, 25 % and 36 % reported having a need for CS, respectively. The large survey indicated that female GPs had used CS and they acknowledged a need for it more often than their male colleagues. In the large Finnish Medical Association survey younger GPs had recognized a need for CS more often than older GPs. In the large survey experience and need of CS were associated with active participation in CME and often having patients who requested certain medicines or diagnostic tests. In the convenience sample, experience of CS was associated with being older, and both experience of and the need for CS were related to experiencing the job as being emotionally draining.

The convenience sample from health centres indicated that among GPs the mean satisfaction with work was high (7.4–7.9 out of 10) while at the same time 18 % of the GPs were emotionally exhausted, 30 % felt alone at work and 32 % felt that they had to work too hard. A longer working

history, feeling alone at work and having committed a medical error predicted emotional exhaustion, whereas good tolerance of uncertainty protected GPs from emotional exhaustion.

6.2 Methodological considerations

Strengths

To my knowledge this is the first study in which CS among both medical students and GPs in various work positions and phases of their work careers has been explored systematically. A sequential exploratory design of mixed methods was used (Creswell 2009, Biddix 2017). Qualitative and quantitative methods together give a clearer picture of the contents, needs and associated factors of CS. Mixed methods enabled us thoroughly and multi-dimensionally to explore the phenomena connected with clinical supervision. Using both qualitative and quantitative methods enabled us to address research questions at different levels and from various perspectives.

In the qualitative study of medical student Balint groups we systematically analysed the contents of group discussions: the contexts, triggers for case narration and themes in the discussions. Qualitative analysis revealed different layers in the student Balint group discussions. This is the first study in which both the phenomena that triggered case narrations and the themes discussed in student Balint groups, has been systematically examined. It shows that the concept of a case needs to be broadened in student groups.

To study the contents of student Balint group discussions by using a qualitative approach may be considered an appropriate choice, since there was little previous information about the processes within student Balint groups. A qualitative approach is considered suitable to explore human activity such as group discussions in order to figure out the themes and phenomena and bring up new insights (Pope & Mays 2000). Thus, findings in such an analysis may be used as a basis for further hypotheses that may be tested in quantitative studies (Greenhalgh & Taylor 1997). Concerning student Balint group discussions, there are several descriptions of such groups, but proper qualitative analyses of the contents have been lacking. In line with the principles of qualitative studies, in this study we aimed to make sense of and interpret the meanings of the participants in the Balint groups (Greenhalgh & Taylor 1997).

The collection of data by way of observation and field notes was chosen as a feasible and common

method of collecting data for qualitative analysis (Silverman 2004, Pope & Mays 2000), as it was considered to be less disturbing than video- or audio-taping Balint group discussions. Discussion after each session among the three group leaders ensured that the data included all information and it was correct (Gibbs 2007, Silverman 2004).

Analysis of the data relied on a grounded theory-based approach with thematic content analysis (Glaser & Strauss 1967). Comparisons of analyses and negotiations were performed several times between the three group leaders and between the participants of the study group to limit biases of the method. Although the number of participants was small, the 15 group discussions produced rich material with 28 cases from various contexts and a variety of themes in the discussions. The group leaders in the Balint groups were not providing inputs of their own themes or issues, but they were facilitating the discussion and making it safe. Thus, the discussion themes and contents were produced by the students and not by the group leaders.

This study was also the first large study in which the use of and need for CS amongst GPs was explored. A major strength is that the large survey included all Finnish working-aged specialists in general practice and the response rate (74 %) was fairly good. Of specialists in general practice, 1252 physicians responded to the special questions concerning CS, thus producing a response rate in this group of 58 %. This can also be considered satisfactory compared with many physicians' surveys (Kellerman & Herold 2001, Creavin et al. 2011). Thus, the findings may be considered representative of GPs in Finland.

The data for Studies III and IV was collected using a web-based questionnaire among a convenience sample of physicians working in community health centres in Southern Finland. The convenience sample obtained via known contact persons in health centres enabled us to obtain correct email addresses from those physicians working currently in that particular health centre. The turnover of physicians, especially younger ones, is very high and the email addresses provided by the Finnish Medical Association may be outdated. Using a convenience sample also enabled us to gain a high response rate and meticulously completed questionnaires from both young and experienced GPs of both genders working in health centres. The questionnaire used in the convenience sample included previously validated items and it was piloted before use (Nevalainen et al. 2012). It also included issues from the validated and commonly used Maslach Burnout Inventory (Maslach & Jackson 1981). The questionnaire provided relatively detailed and personal information on the participants. The anonymity of the survey may have increased responders' willingness to share their experiences.

Limitations

One limitation is that quantitative data sets were collected from a different population type in comparison with the qualitative data. Thus, the findings from student Balint groups could not be tested in a similar population. Each subproject had its own independent objectives. However, each subproject served the main aim of the investigation. The main reason to study clinical supervision at the second stage, using quantitative methods, was the fact that there were no prior large-scale studies exploring the use of and needs for clinical supervision among GPs.

The low number of participants in the qualitative study is a limitation of the study. Furthermore, they were highly selected volunteers and all were females. The students were in their 3rd to 6th year of study and thus had varied lengths of experience. Therefore, the generalizability of the results of the study on student Balint groups is highly limited. Furthermore, the Finnish cultural context may produce different themes in comparison with respective groups in other countries. The nature of qualitative research is to generate new insights rather than generalizable results (Greenhalgh & Taylor 1997). The fact that the field notes were written by the group leaders implies the possibility of bias. The use of field notes is a limitation of the study, since they are partly memory-dependent and may include interpretations of those who made the notes. We tried to avoid this by having thorough discussions between three group facilitators. The method of data collection was a deliberate choice. Audio- or videotaping of the sessions was not used, in order to ensure a free, trusting and natural atmosphere in the groups.

A limitation of both the large survey and the convenience sample survey is their cross-sectional nature, which allows no conclusions concerning causality. Exploration of the causal relationships between the background variables and CS would demand longitudinal follow-up studies or, preferably, randomized controlled trials. Furthermore, the prevalence of burnout at any one point may describe only the situation at the time of the research. In addition, we could not describe the dynamics related to GPs' burnout. Burnout among GPs might be different at different time-points. Both in the large survey and in the convenience sample the Finnish healthcare context might limit generalization of the results.

The special question concerning CS in the large survey may raise some concern, since the concept of CS is ambiguous. This makes it possible that the responders understood the questions slightly differently. However, the question included a reference to Balint groups, which is a well-known CS method among physicians in Finland. Physicians have used Balint groups for forty years in Finland

and Balint groups are familiar to GPs.

The small size of the convenience sample limits the statistical power of the analyses and discovery of possible associations between CS and GPs' background variables and experiences. The small sample also limits the generalizability of the results. Another limitation is that the MBI questionnaire was not used in its full-length form (Maslach & Jackson 1981). This was, however, a conscious choice. The use of a lengthy questionnaire would most probably have reduced the response rate. Previous studies have also shown that the use of a single item to measure emotional exhaustion has been tested and reported to be feasible and valid (West et al. 2009, Hansen & Girgis 2010, West et al. 2012) and may be used alone (West et al. 2009). Nevertheless, it needs to be kept in mind that burnout is a multifaceted construct. Furthermore, the choice to use the 4-point Likert scale with the items was feasible when we piloted our questionnaire and considered the hurried responders. It discriminated responders as well as did the 7-point scale.

6.3 Student Balint groups

Originally, in Balint groups, a case referred to a patient case (Balint 1964, 1984). The concept of a case in the student Balint groups in Study I was broader. It was meaningful to treat issues that arose from confusing experiences in medical education, and how being a physician affects one's personal life, since the students had a need to explore them and they were an integral part of their lives as medical students and affected their professional development. The findings in this study are in line with those of a few other studies that have also revealed a need to broaden the concept of a case in student Balint groups (Söllner et al. 1992, O'Neill et al. 2015). This has been explained by the fact that medical students have not had a great deal of experience of physician–patient relationships (O'Neill et al. 2015). Nevertheless, medical students may benefit from supervised discussions of not only care-related stressful experiences (Atkinson & Rosenstock 2015) but also psychosocial or moral dilemmas (Lutz et al. 2013) and experiences of stress (Perry et al. 2013).

The triggers for case narrations arose typically from ambiguous emotions and inner conflicts that the students had experienced. Several triggers found in the present study have been reported in previous studies; for example *incurable patient* (Söllner et al. 1992), *difficult human relationships*, including rude behaviour of professionals or patients (Levenstein 1982, Brazeau et al. 1998), *witnessing injustice* (Brazeau et al. 1998) and other ethical dilemmas (Lutz et al. 2013) have often been dealt with in student Balint groups. Notably, in Study I only one case (deviating case) could

not be categorised into any of the above triggering groups. It is inherent to the Balint method that the triggers for presenting a case are ambiguities or conflicts experienced in physician–patient relationships (Balint 1986). However, appropriate studies of the triggers for narrating a case in a Balint group have not been published previously. Systematic knowledge of issues that confuse medical students so that they trigger a case narration widens the perspective of the medical educators about what might be important for the students to discuss concerning their process of becoming physicians.

In this study, the themes of student Balint group discussions were similar to those that have been reported in other Balint group descriptions. The common feature of cases narrated in the student Balint groups was that they created strong emotions and ambiguous thoughts in the students. Feelings aroused by patients are common themes in Balint groups (Balint 1986, Botelho 1990, Mahoney et al. 2013). This probably originates from the Balint method itself. The patient cases in this study were often associated with encounters with patients who could not take care of themselves, who were severely ill or dying or who had been lying or showed aggression. Emotions and feelings were discussed in association with most cases. In previous reports of student Balint groups, patient-related feelings reflected have included anger, being irritated, liking or disliking, hopelessness, anxiety and helplessness (Brazeau et al 1998).

In this study, building of professional identity emerged as a theme in most discussions in the student Balint groups. Professional identity was discussed in association with patients, education and private life. In medical studies explicit discussions on professional identity should be encouraged, since we know that medical culture is only partly conveyed and learned within the curriculum-based hours formally allocated to medical students (Pitkälä & Mäntyranta 2004). It has been argued that values, attitudes and related behaviours considered important within medical culture are often internalised by medical students via a “hidden curriculum” (Hafferty & Franks 1994). However, the promotion of sound professional maturation among medical students needs to be supported by explicit reflection of individual and shared clinical and nonclinical experiences (Cruess et al. 2015).

Interestingly, the students brought up negative role models as “bad examples” that should not be copied. The internalisation of values and attitudes is therefore not automatic. “Bad examples” aroused strong emotions in the students. Negative role models and related defences have also been discussed in other student Balint groups (Kaij 1977, Levenstein 1981, 1982, Luban-Blozza 1989, 1995, Bengtsson et al. 1997, Brazeau et al. 1998) and in other studies on medical students (Pitkälä

& Mäntyranta 2003). The students in this study did not appear callous in the discussions and they seemed to value the physician–patient relationship. In medical education, both the active presence of the physician as a part of the treatment (Balint 1986, Cassell 1991, Szawarski 2004) and core professional skills should be taught explicitly as well as through role models presented by medical teachers (Cruess et al. 2015).

Collaboration with other medical professionals has also previously been reported in student Balint groups (Bengtsson et al. 1997, Stein 2003). In this study the students' experiences of collaboration with other medical professionals was usually not problematic. In some cases, the students had had problems and felt humiliated by more experienced colleagues. Similar experiences of humiliation have been described in other studies (Pitkälä & Mäntyranta 2003, Stein 2003).

6.4 CS for GPs

In this study 42 % of specialists in general practice and 35 % of GPs working in health centres had either previous or current experience of CS. A study on participation both in CME and CS revealed that 73 % of GPs in Denmark had attended either one or the other but those attending CS were not separated (Brøndt et al. 2008). In line with the findings in our study, the results of a Danish study suggested that one third of GPs in Denmark have experience of CS (Nielsen & Tulinus 2009), while another Danish survey revealed that 37 % of Danish GPs were currently participating in group supervision and 59 % had earlier experience of it (Nielsen & Söderström 2012). It is interesting that despite the fact that Balint groups have been available for GPs since the 1950s (Salinsky 2002), and in many countries they have been integrated into specialist training programmes in general practice (Johnson et al. 2001, Häfner et al. 2011, Tulinus 2013), not much is known of how much GPs, either with or without a specialist's degree in general practice, have attended or currently undergo CS. Therefore, this study brings new information about the use of CS and calls for further research.

Being experienced with CS was associated with female gender in the large survey. This is in line with the results of a Danish study that revealed that female GPs had participated in CS more often than male GPs (Nielsen & Söderström 2012). In the convenience sample GPs experienced with CS were older than those with a need for or not needing CS. There was a statistical trend that the proportion of specialists in general practice was larger among those with experience of CS than among those with a need for CS or not needing it. This might indicate that older GPs and specialists

in general practice have had more opportunities to participate in CS, but also that they are more aware of the importance of reflective thinking than others due to their training and clinical experience

In the large survey of GPs, both those experienced with CS and those who had a need for it, were participating in CME more actively than those who had no need for CS. It is interesting to connect this with the finding in a Danish study that GPs with burnout less often attended both supervision groups and CME than GPs without burnout (Nielsen & Tulinus 2009). Some results suggest that peer support and self-reflection are important for GPs' endurance at work (Kjeldmand et al. 2004, Jensen et al. 2008, Lee et al. 2009).

In the large survey sample 25 % of the specialists in general practice and in the convenience sample 36 % of GPs working in health centres had a need for CS. These are larger proportions than in an earlier Finnish study, according to which 20 % of GPs working in health centres reported a need for CS (Jaatinen et al. 2007). In line with our results, the Danish survey mentioned above revealed that a quarter of GPs needed CS (Nielsen & Söderström 2012). Drawing conclusions by comparison of these figures is challenging because of the small number of studies and differences in the healthcare systems and organization of CS in different countries. To my knowledge, no other studies have been carried out to evaluate how much GPs experience a need for CS.

In the large survey 33 % of the participants had no need for CS. These physicians were more often males, were 50 years of age or more, had participated less in CME and worked in sectors other than primary health care. In this group the greater age, and thus long-term experience of work, might explain the reduced need for CS. However, it has been argued that participating less in CME might reflect problematic attitudes or even stress (Kushnir et al. 2000, Geneau et al. 2008).

In the large survey sample more than two-thirds of specialists in general practice reported that the amount of patients with requests had increased in recent years, which is in line with reports from other countries (Little et al. 2004). Two in three often or very often had patients who requested diagnostic tests and two in five often or very often had patients requesting certain medicines. A little over two in five specialists in general practice thought that patients' requests complicate the physician-patient relationship. Patients' requests often provoke unpleasant emotions in physicians (Tentler et al. 2008, Miedema et al. 2009), and they have been associated with physicians' distress and burnout (Kjeldmand et al. 2004, Goehring et al. 2005, van Ham et al. 2006, Tyssen 2007) and altered clinical behaviour (Little et al. 2004, Kravitz et al. 2005, Tentler et al. 2008).

In the large survey, the proportions of those who reported that they often had patients requesting certain diagnostic tests or medicines, and those who reported that the number of patients with requests had increased in recent years, were smaller among physicians who reported no need for CS than among physicians experienced with or having a need for CS. This finding might mean that the level of stress among physicians not having a need for CS is lower than it is among those in need of CS, and having patients with requests has been associated with physicians' stress (Kjeldmand et al. 2004, Goehring et al. 2005, van Ham et al. 2006, Tyssen 2007).

The social transformation of medicine has profoundly changed the work of the physician, especially among primary-care physicians. Advances in information technology have also shaped the behaviour and expectations of patients. Today many patients enter medical facilities knowing a great deal about their condition, and demand particular treatments from medical specialists rather than seeking out a primary-care physician to evaluate and diagnose their condition (McKinlay & Marceau 2008). Patient's expectations and requests are in line with the shift to a consumer-driven model of healthcare. The increased commodification of medical care has had a deep impact on the working life of physicians. The patient–physician encounter has become more complex (Oh 2012).

The results of several studies have suggested that CS for GPs might help them in dealing with work distress arising from challenging patients and even in changing their practice behaviour (Kjeldmand et al. 2004, Turner & Malm 2004, Wilhelm et al. 2005, Kjeldmand & Holmström 2008, Nielsen & Tulinus 2009). However, this has not been investigated in detailed studies. A recent systematic review and meta-analysis included 20 controlled trials exploring the efficacy of various interventions aiming to reduce physicians' burnout (Panagioti et al. 2017). None of these trials had CS as intervention.

In the convenience sample of GPs in this study, feeling emotionally drained as a consequence of work was associated both with being experienced with and having a need for CS. Feeling emotionally drained is considered as one aspect of the emotional exhaustion domain (Maslach & Jackson 1981).

Overall, only a few work experiences were associated with GPs' experiences or needs for CS in this study. For example, we found no association between GPs feeling that they work too hard, and either experience with or needing CS. This may signal that GPs are accustomed to working hard and cope with it using strategies other than CS (Walker & Pirotta 2007, Zwack & Schweizer 2013). There was a statistical trend that GPs with experience of or in need of CS more often felt alone at

work than those not feeling a need for CS. Furthermore, there was a statistical trend that those experienced with CS felt that they had less often become callous than those needing CS. However, the sample size was small and thus low statistical power might have had an effect on the results. These findings should be tested in future studies. The cross-sectional nature of our study does not allow us to evaluate causal relationships between CS and job experiences. For example, it is unclear whether those with emotionally draining job experiences and experience with CS were even more emotionally drained before their CS, or whether CS did not alleviate their feelings.

In the convenience sample of this study, a third of GPs working in health centres reported feeling alone at work, whilst a quarter of GPs lacked opportunities to consult with their colleagues. According to a Finnish study, isolation at work among GPs equates with making decisions alone, a lack of collaboration with other health-centre workers and secondary-care specialists, not being part of the work community and a lack of mentoring at work (Aira et al. 2010). In earlier studies in Finland, 67 % to 71 % of GPs working in health centres thought their work left them isolated too often (Kumpusalo et al. 2002, Mäntyselkä et al. 2010). These figures are remarkably higher than those in our study. The work environment in health centres in Southern Finland has changed in recent years, especially for young physicians, who now have ample consultation opportunities with personal educational tutors concerning clinical issues (Hartikainen et al. 2013). However, this is different from supportive CS (e.g. Balint-group work), which emphasizes shared reflection on emotional work experiences with a professional especially trained for this task.

In the convenience sample of this study, GPs commonly reported feeling satisfied with their work and having rewarding work experiences. A Dutch study of GPs' emotional reactions to aspects of their work also revealed that positive feelings were common, but not complementary to negative feelings associated with their work (Grol et al. 1985). Positive feelings from work were associated with more openness to their patients and a better quality of care (Grol et al. 1985). In a ten-country European study, the average job satisfaction among GPs stood at 3.45 on a five-point Likert scale (Bensing et al. 2013). The level of job satisfaction reported among GPs in the present study (7.6 out of 10) is in line with this. However, comparison of the scores between these two studies is not straightforward because the wording of the questions and the measurement scales were different. GPs' satisfaction with work is important (Wallace et al. 2009) because it is associated with better quality of work, indicated, for example, by better communication with patients (Bensing et al. 2013). In turn, physicians' dissatisfaction with their work is associated with suboptimal healthcare delivery, poor clinical outcomes, higher job turnover, and malfunctioning within the healthcare system (Wallace et al. 2009, Heponiemi et al. 2014).

6.5 Emotional exhaustion among GPs

In this study, the prevalence of emotional exhaustion among GPs was 18 %. Similar figures have been reported among Swiss primary-care physicians (Goehring et al. 2005), French and Australian trainees in general practice (Cooke et al. 2013, Galam et al. 2013), and among Danish GPs (Pedersen et al. 2013). In one study carried out in the UK (Orton et al. 2012), 46 % of GPs experienced a high level of emotional exhaustion. However, comparing the prevalence of GPs' emotional exhaustion is challenging because the definitions, measurement instruments and target populations vary from study to study.

In this study, GPs who were emotionally exhausted were older and more experienced than their non-exhausted colleagues, but there were no differences with respect to gender, marital status, specialisation or work position. In line with our results, emotional exhaustion among GPs in other studies has been found to be independent of gender (Thommasen et al. 2001, Pedersen et al. 2013). However, the finding that older and more experienced GPs are more often emotionally exhausted is different from what has been suggested in earlier literature. Many studies have identified emotional exhaustion and burnout among medical residents (Michels et al. 2003, Schaufeli & Bakker 2004, IsHak et al. 2009, Cooke et al. 2013, Galam et al. 2013) and some have shown a trend in association with younger GPs (Soler et al. 2008). Whether or not GPs are at higher risk of emotional exhaustion in the course of their careers deserves further investigation.

Emotionally exhausted GPs more often felt frustrated with their jobs, emotionally drained because of their work and overworked in their jobs than did GPs who did not experience emotional exhaustion. This was as expected, as items from the emotional exhaustion section of the original MBI have been shown to associate with each other (West et al. 2009). The depersonalization item "Feelings of becoming callous towards other people" showed a marginally significant association with emotional exhaustion. Depersonalization has been viewed as having an equal footing with emotional exhaustion in the burnout literature (Maslach & Jackson 1981). It correlates moderately with emotional exhaustion (Maslach & Jackson 1981).

The results of this study suggest that emotionally exhausted GPs tolerate uncertainty less well and more often fear committing and had committed medical errors than did those who were not emotionally exhausted. Emotional exhaustion and burnout in physicians have been associated with the inclination to self-report suboptimal patient care (IsHak et al. 2009). According to the literature,

emotionally exhausted employees exhibit diminished job performance (Wright & Cropanzano 1998). The finding in this study that emotionally exhausted GPs had committed a medical error more often than those not emotionally exhausted is a sign of suboptimal performance and risk to patient safety. Even though this item was only marginally significant in the logistic regression model it warrants more studies in this area.

Emotionally exhausted GPs more often felt alone at work than did GPs who were not emotionally exhausted. Some studies have shown that emotionally exhausted individuals use maladaptive coping mechanisms (Hu et al. 2012) and overemphasize such mechanisms as avoidance or withdrawal (Wright & Cropanzano 1998, Shanafelt et al. 2002). Other research has shown that working alone without backup from co-workers is a factor that discourages physicians from working in primary care (Walker & Pirota 2007).

No significant differences were found concerning how emotionally exhausted GPs and those not emotionally exhausted felt about their ability to influence their patients' lives through their work, or whether they felt their patients trust them. These are dimensions of job engagement, which is considered a positive antipode of job burnout (Schaufeli & Bakker 2004). Job engagement consists of energy, involvement and efficacy (Schaufeli & Bakker 2004), and is positively associated with experiences of significance and pride at work (Schaufeli et al. 2002).

6.6 Conclusions

Balint groups for medical students provide an arena to discuss widely about experiences and feelings related not only to patients but also to ethical issues encountered during medical studies and relationships with other healthcare professionals. Balint groups may be valuable for enhancing medical students' professional growth and the development of their professional identity as a physician. Student Balint groups need to be modifications of traditional Balint groups, and contexts other than just patient cases need to be accepted into the discussion. These groups offer educational potential by allowing members to be accepted as they are and to share their inner experiences with others in a safe environment.

This study revealed that the use of and need for CS amongst GPs was very common. Females, younger physicians and those keen on participating in CME were also keen to participate in CS. The study also revealed that patients' requests for medicines, and experience of work being emotionally draining were associated with use and need for CS.

Although rewarding work experiences and satisfaction with one's work are common among GPs, large proportions of them report a need for CS, but have no access to it. Emotionally challenging work experiences are common among GPs, and one in five experiences emotional exhaustion from work. Some dimensions of emotional exhaustion may signal a need for CS among GPs. Finally, lack of social support at work persists, given that one a third of GPs feel alone at work, and one in four cannot consult a colleague at work.

7. Implications for future studies

Research on clinical supervision among medical students, GPs and physicians in general is still sparse.

Larger scale studies are needed to investigate the effects of Balint groups on medical students.

Preferably, randomized controlled trials should be used to study the efficacy of the groups.

Outcome measures should include wellbeing and quality-of-life measures. Students' Balint groups should be explored further in qualitative studies to evaluate their pedagogical value in professional development. It should be investigated whether, when and how Balint groups should be included in basic medical education.

Clinical supervision among GPs is very common and it should be investigated more, using both qualitative and quantitative methods. The effects of CS among GPs have not been fully investigated. Randomized controlled trials (RCTs) are urgently needed to study the effects of CS on GPs' wellbeing at work, quality of work, and patient safety. In this kind of RCT half of the participants could serve as controls and be on a waiting list to participate in CS after the trial is over. Various methods of CS should be explored.

Emotional exhaustion is common among GPs. The predictors, associated factors and consequences of emotional exhaustion among GPs should be investigated in longitudinal and large-scale studies.

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arvonimi _____
mainosposti _____

2. Koulutus- ja pätevyystiedot

Oppiavot, laillistukset, erikoisoikeudet (Suomessa myönnetty), erityispätevydet, muut tutkinnot, kielitaito

3. Erikoistumiskoulutuksessa olevat

Mille alalle olet erikoistumassa?

Erikoisala

<input type="checkbox"/> anestesiologia ja tehohoito	<input type="checkbox"/> keuhkosairaudet	<input type="checkbox"/> lastenneurologia	<input type="checkbox"/> oikeuspsykiatria	<input type="checkbox"/> suu- ja leukakirurgia
<input type="checkbox"/> endokrinologia	<input type="checkbox"/> kliininen farmakologia	<input type="checkbox"/> lastenpsykiatria	<input type="checkbox"/> ortopedia	<input type="checkbox"/> sydän- ja rintaelinkirurgia
<input type="checkbox"/> foniatria	<input type="checkbox"/> kliininen fysiologia	<input type="checkbox"/> lastentaudit	<input type="checkbox"/> patologia	<input type="checkbox"/> syöpätaudit
<input type="checkbox"/> fysiatria	<input type="checkbox"/> kliininen hematologia	<input type="checkbox"/> liikuntalääketiede	<input type="checkbox"/> perinnöllisyyslääketiede	<input type="checkbox"/> terveydenhuolto
<input type="checkbox"/> gastroenterologia	<input type="checkbox"/> kliininen kemia	<input type="checkbox"/> naistentaudit ja synnytykset	<input type="checkbox"/> plastiikkakirurgia	<input type="checkbox"/> työterveyshuolto
<input type="checkbox"/> gastroenterologinen kirurgia	<input type="checkbox"/> kliininen mikrobiologia	<input type="checkbox"/> nefrologia	<input type="checkbox"/> psykiatria	<input type="checkbox"/> urologia
<input type="checkbox"/> geriatria	<input type="checkbox"/> kliininen neurofysiologia	<input type="checkbox"/> neurokirurgia	<input type="checkbox"/> radiologia	<input type="checkbox"/> verisuonikirurgia
<input type="checkbox"/> ihotaudit ja allergologia	<input type="checkbox"/> korva-, nenä- ja kurkkutaudit	<input type="checkbox"/> neurologia	<input type="checkbox"/> reumatologia	<input type="checkbox"/> yleiskirurgia
<input type="checkbox"/> infektiosairaudet	<input type="checkbox"/> käsikirurgia	<input type="checkbox"/> nuorisopsykiatria	<input type="checkbox"/> silmätaudit	<input type="checkbox"/> yleislääketiede
<input type="checkbox"/> kardiologia	<input type="checkbox"/> lastenkirurgia	<input type="checkbox"/> oikeuslääketiede	<input type="checkbox"/> sisätaudit	

Tiedekunta, johon olet ilmoittautunut erikoislääkärikoulutukseen:

☐ Helsinki ☐ Kuopio ☐ Oulu ☐ Tampere ☐ Turku ☐ ulkomailla ☐ en ole vielä ilmoittautunut

Minä vuonna arvioit saavasi erikoisoikeudet alalle, jonka koulutuksessa olet:

☐ aion erikoistua myöhemmin, alan nimi: _____

Lisää kysymyksiä sisäsivuilla...

4. Työskentelytiedot

4.1. Virka, toimi tai tehtävä 12. 3. 2008*

viran/toimen nimike

työsuhde

työaika

työehtosopimus

työpaikan nimi

työpaikan osoite

Muutokset, korjaukset ja lisäykset

viran/toimen nimike:

työsuhde

☐ vakituinen ☐ määräaikainen ☐ sijainen

työaika

☐ kokoaikainen ☐ osa-aikainen, työaika _____ tuntia viikossa

työnantaja:

työehtosopimus

☐ kunta, sairaalasopimus ☐ Palvelutyönantajat (PT)
☐ kunta, väestövastuu-VES ☐ Palvelulaitosten työnantajat (PTY)
☐ kunta, muu terveyskeskus-VES ☐ ammatinharjoittaja
☐ kunta, muu VES ☐ ammatinharjoittamisyhtiö
☐ valtio ☐ muu yksityinen sopimus

työpaikka

osasto/

yksikkö

lähiosoite

posti-
numero

posti-
toimipaikka

Jos olet kokonaan poissa lääkärintyöstä, syynä on:

☐ työkyvyttömyyseläke ☐ vanhuuseläke
☐ varhennettu vanhuuseläke ☐ työttömyys
☐ yksilöllinen vanhuuseläke ☐ muu syy, mikä:

Eläkkeen alkamispäivä:

4.2. Tilapäinen työstä poissaolo 12. 3. 2008

☐ vuosiloma ☐ aktiivi- tai päivystysvapaa
☐ sairausloma ☐ opiskelu/tutkimus Suomessa
☐ äitiysloma ☐ opiskelu/tutkimus ulkomailla
☐ isyysloma ☐ varusmiespalvelus
☐ hoitovapaa ☐ siviilipalvelus
☐ lastenhoito ☐ ulkomailla

muu työ tai syy tarkemmin:

☐ lomarahavapaa
☐ lomautus
☐ kuntoutustuki
☐ osa-aikaeläke
☐ muussa työssä (ei lääkärinä)
☐ muu syy

Sijaisjärjestelyt?

☐ kyllä, sisäisin järjestelyin
☐ kyllä, ulkopuolinen sijainen
☐ säästösyistä ei otettu
☐ ei tarvittu
☐ ei saatu
☐ en tiedä

4.3. Työ, josta olet virkavapana 12. 3. 2008

viran/toimen nimike

työsuhde

työaika

työnantaja

työehtosopimus

työpaikan nimi

työpaikan osoite

Korjaukset

Sijaisjärjestelyt?

☐ kyllä, sisäisin järjestelyin
☐ kyllä, ulkopuolinen sijainen
☐ säästösyistä ei otettu
☐ ei tarvittu
☐ ei saatu
☐ en tiedä

* Tiedot tulevat myös Terveystietokeskuksen käyttöön

4.4. Sivuvirat, -toimet ja sivutoimiset yksityisvastaanotot 12. 3. 2008*

Ilmoita tässä myös päätoimisten yksityisvastaanottojen sivuvastaanotot

viran, toimen yms. nimike	työsuhte (kts. kohta 4.1)	työaika t/vko	työehtosopimus (katso kohta 4.1)	työpaikan nimi ja osoite

5. Jäsenyydet

Lääkäriliiton ja sen alaosastojen jäsenyydet sekä Lääkäriliiton jäsenmaksuvälityksessä olevien järjestöjen jäsenyydet

*Tiedot tulevat myös Terveystieteiden tutkimuskeskuksen käyttöön

6. Sähköpostiosoitteesi Lääkäriliiton rekisteriin

Jos sinulla on käytössä useita sähköpostiosoitteita, kirjoita alla olevalle viivalle se, johon toivot saavasi Lääkäriliitosta tulevat postit:

_____@_____

7. Osallistutko tai oletko osallistunut työnohjaukseen (esim. Balint tms.)?

- Osallistun nykyisin ☐
Olen osallistunut aiemmin, mutta en nykyisin ☐
Toivoisin työnohjausta, mutta sitä ei ole tarjolla ☐
En koe tarvitsevani työnohjausta ☐

8. Ammatillinen täydennyskoulutus

- a) Olitko työpaikan ulkopuolisessa ammatillisessa täydennyskoulutuksessa vuonna 2007? ☐ kyllä ☐ en
- b) Miten koulutusaika jakaantui päivissä? (Ilmoita päivät siten, että yksi koulutuspäivä tarkoittaa vähintään 6 tunnin koulutusta)
- | | |
|--|----------|
| Palkallinen virkavapaa/työajalla | ____ pv |
| Palkaton virkavapaa | ____ pv |
| Omalla ajalla (aktiivi- tai päivystysvapaa, lomaa, ei työnantajaa) | ____ pv |
| Yhteensä koulutuspäiviä vuonna 2007 | ____ pv |
- c) Kuinka monta tuntia keskimäärin viikossa arvioit työaikaasi sisältyneen työpaikan sisäistä koulutusta? (meetingit, omatoiminen opiskelu jne.) _____ tuntia / vko

9. Potilaiden lääkärille esittämät vaatimukset

Onko sinulla potilaita, jotka ilmoittavat jo vastaanotolle tullessaan haluavansa tiettyjä hoitoja tai tutkimuksia?

En ota vastaan potilaita	<input type="checkbox"/>				
		Erittäin usein	Usein	Harvoin	Erittäin harvoin
Laboratorio- tai muita tutkimuksia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leikkauksia tai muita toimenpiteitä	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tiettyjä lääkkeitä	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ovatko edellä mainitun kaltaiset tilanteet mielestäsi lisääntyneet viime vuosien aikana?

	Selvästi	Jonkin verran	Ei ole	En osaa sanoa
Laboratorio- tai muiden tutkimusten haluaminen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leikkauksien tai muiden toimenpiteiden haluaminen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tiettyjen lääkkeiden haluaminen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mitä mieltä olet seuraavista väittämistä?

(Vastausvaihtoehdot: 1 = täysin samaa mieltä, 2 = joksikin samaa mieltä, 3 = en osaa sanoa, 4 = osittain eri mieltä, 5 = täysin eri mieltä)

Potilaiden vastaanotolla esittämät vaatimukset	1	2	3	4	5
hankaloittavat potilas-lääkärisuhdetta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vaikeuttavat lääketieteellistä päätöksentekoa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
hämärtävät potilaiden näennäisten ja todellisten terveystarpeiden rajaa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potilaiden lisääntynyt tietotaso

parantaa potilaan hoitoon sitoutumista	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
helpottaa potilaan ja lääkärin välistä vuorovaikutusta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potilaan muuttuvaa roolia ei huomioida riittävästi lääkärin koulutuksessa

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

10. Potilaiden alkoholinkäyttö

Kuinka usein kysyt potilailtasi heidän alkoholinkäytöstään?

- miltei kaikilta ☐
kahdelta kolmesta ☐
joka toiselta ☐
joka kolmannelta ☐
harvemmin tai en koskaan ☐
työhöni ei kuulu vastaanottotoimintaa ☐

Kuinka usein potilaan alkoholinkäytöstä keskusteleminen johtaa laboratoriotutkimukseen (GT, CDT tms.)?

- miltei aina ☐
kahdessa tapauksessa kolmesta ☐
joka toisella kerralla ☐
joka kolmannelta kerralla ☐
harvemmin tai en koskaan ☐

■ Päiväys

allekirjoitus

Kiitos vastauksestasi

Survey for doctors working as GPs in contact health centers

1. Sukupuoli:

- ☐ Mies
☐ Nainen

2. Syntymävuosi: _____

3. Äidinkieli

- ☐ suomi
☐ ruotsi
☐ muu, mikä? _____

4. Siviilisäätty

- ☐ naimisissa/avoliitossa
☐ eronnut
☐ leski
☐ yksineläjä

5. Kuinka pitkään olet toiminut lääkärinä kliinisessä lääkärintyössä?

_____ vuotta _____ kuukautta

6. Olen (merkitse rastilla, mikä pitää paikkansa)

- a. suorittamassa ns. eurovaiheen (PTL-) palvelua
b. muu lääkäri perusterveydenhuollossa, en ole erikoistunut
c. yleislääketieteen erikoislääkäri
erikoistuin vuonna _____
d. muun alan erikoislääkäri _____
mikä/mitkä? _____
erikoistuin vuonna _____

7. Nykyinen toimenkuvasi (voit valita useita vaihtoehtoja):

Kliininen työ _____
Hallinto _____
Opetus, ohjaus _____
Tutkimus _____
Muu: mikä? _____

8. Arvioi seuraavia kysymyksiä asteikolla

1= ei koskaan, 2= harvoin, 3= silloin tällöin, 4= melko usein tai usein

Olen turhautunut työssäni

1 2 3 4

Tunnen että joudun tekemään liian paljon työtä

1 2 3 4

Tunnen että työni on henkisesti liian raskasta

1 2 3 4

Tunnen itseni lopen uupuneeksi työpäivän jälkeen

1 2 3 4

Olen huolissani siitä, että työni saattaa kyynistää minua

1 2 3 4

Tunnen että voin myönteisesti vaikuttaa potilaitteni elämään työssäni

1 2 3 4

Pystyn käyttämään omaa osaamistani monipuolisesti hyväksi työssäni

1 2 3 4

Tunnen että potilaani luottavat minuun

1 2 3 4

Potilastyö on mielestäni palkitsevaa

1 2 3 4

Tunnen epävarmuutta omien ammatillisten taitojeni suhteen

1 2 3 4

Tunnen epävarmuutta omien ammatillisten tietojeni suhteen

1 2 3 4

9. Oletko tehnyt virheitä kliinisessä potilastyössä viimeisen kolmen kuukauden aikana?

KYLLÄ EI

10. Pelkäätkö virheiden tekemistä lääkärin työssä?

☐ Kyllä

☐ En

☐ En ole ajatellut asiaa tarkemmin

11. Millaiseksi arvioit oman suhtautumisesi epävarmuuteen lääketieteellisessä päätöksentekotilanteessa?

- ☐ Minun on vaikea sietää epävarmuutta diagnostiikan ja/tai hoitopäätöksien suhteen
- ☐ Pystyn sietämään kohtalaisesti epävarmuutta diagnostiikan ja/tai hoitopäätöksien suhteen
- ☐ Pystyn sietämään hyvin epävarmuutta diagnostiikan ja/tai hoitopäätöksien suhteen

12. Tunnetko olevasi työssäsi yksin?

- ☐ En koskaan
- ☐ Joskus
- ☐ Usein
- ☐ Aina

13. Onko sinulla mahdollisuus konsultoida toista lääkäriä työyksikössäsi?

- ☐ Riittävästi
- ☐ Liian vähän
- ☐ Ei lainkaan
- ☐ En tarvitse konsultaatioita

14. Osallistutko/oletko osallistunut työnohjaukseen (esim. Balint tms.)?

- ☐ Osallistun nykyisin
- ☐ Olen osallistunut aiemmin, en nykyisin
- ☐ Toivoisin työnohjausta, mutta sitä ei ole tarjolla
- ☐ En koe tarvitsevani työnohjausta

15. Arvioi, miten tyytyväinen olet työhösi tällä hetkellä (rastita oheiselle janalle oma arviosi):

Erittäin tyytymätön									Erittäin tyytyväinen	
0	1	2	3	4	5	6	8	9	10	
I	I	I	I	I	I	I	I	I	I	I

16. Arvioi, miten tyytyväinen olet elämääsi tällä hetkellä (rastita oheiselle janalle oma arviosi):

Erittäin tyytymätön									Erittäin tyytyväinen	
0	1	2	3	4	5	6	8	9	10	
I	I	I	I	I	I	I	I	I	I	I

Kiitos vastauksistasi!

